



August 17, 2010

Mr. Ralph Howard  
U.S. Environmental Protection Agency - Region IV  
Atlanta Federal Center  
100 Alabama Street, S.W.  
Atlanta, GA 30303

Subject: Transmittal of 2010 Biennial Report for Medley Farm Site Remedial Action

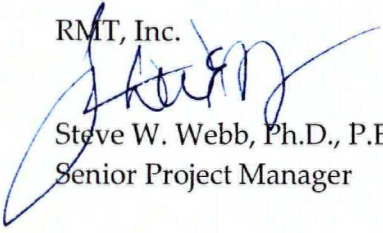
Dear Ralph:

Enclosed, you will find four (4) copies of the 2010 Biennial Report for the Medley Farm NPL Site. These documents are submitted for your review and comment. We look forward to discussing the details of this report with you and other Agency representatives in the near future. By copy of this letter, RMT has also transmitted two (2) copies of this report to Mr. Greg Cassidy of SC DHEC.

If you have any questions or concerns, please do not hesitate to contact me at your earliest convenience (864/234-9363).

Very truly yours,

RMT, Inc.

  
Steve W. Webb, Ph.D., P.E.  
Senior Project Manager

cc: Medley Farm Distribution List  
Greg Cassidy – SC DHEC  
Lisa Clark  
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## **2010 Remedial Action Biennial Report**

**Medley Farm Site  
Gaffney, South Carolina**

**August 2010**





# 2010 Remedial Action Biennial Report

## Medley Farm Site

*Gaffney, South Carolina*

**August 2010**

*Prepared For  
Medley Farm Site Steering Committee*

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RMT, Inc. | Medley Farm Site  
2010 Remedial Action Biennial Report

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## Executive Summary

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In 2004, enhanced reductive dechlorination (ERD) was initially implemented at the Medley Farm Site (site) as an interim corrective measure (ICM) to facilitate the growth of anaerobic microbes to *in situ* treat residual levels of volatile organic compound (VOC) observed at the site and accelerate attainment of the groundwater remediation goals established for the site. Since October 2004, six ERD nutrient injection events have been conducted at the site. Each event has been followed by the collection and analysis of groundwater samples to evaluate the ERD performance. Beginning in June 2008, collection and analysis of surface water samples was added to the ERD performance monitoring program. Since July 2008, RMT has attempted to maximize ERD efforts by increasing the volume of treatment additive introduced into each of the injection wells located within areas of residual tetrachloroethene and trichloroethene (PCE/TCE) groundwater concentrations.

Groundwater monitoring data collected in March 2010 indicate that, in several limited areas, seven chlorinated VOCs remain in groundwater at concentrations exceeding their respective remediation goals. These VOCs include PCE, TCE, *cis*-1,2-dichloroethene (*cis*-DCE), 1,1,2-trichloroethane (1,1,2-TCA), 1,1-DCE, 1,2-dichloroethane (1,2-DCA) and vinyl chloride. Of these compounds, PCE and TCE remain the most widespread. VOCs have not been detected in surface water samples collected from the unnamed tributary to Jones Creek.

A considerable reduction in the PCE/TCE groundwater plume has been observed since ERD was initiated in 2004. What was once a site-wide, single VOC plume has evolved into smaller fragmented remnants, currently designated as the northern, southern, and eastern VOC plumes. Aquifer conditions conducive to ERD processes show good evidence of persistence within the active treatment areas. Geochemical indicators suggest that ERD-appropriate conditions are maintained for a period of at least six months and possibly extending up to two years after an injection event.

Varying degrees of remedial progress continue to be observed within the three remnant VOC plumes. The southern plume has shown the most remedial progress, with only two monitoring wells currently displaying VOCs at levels above site groundwater clean-up goals, and performance monitoring results which support a monitored natural attenuation (MNA) remedy.

PCE/TCE concentrations in groundwater samples collected from the perimeter wells of the eastern plume are stable to declining in concentration, indicating that the eastern plume is not

expanding. Concentrations of daughter products *cis*-DCE and vinyl chloride and geochemical indicators show strong evidence of reductive dechlorination (RD) throughout the eastern plume area. Based on the groundwater performance monitoring data, RMT believes that active remedial measures in this portion of the site are nearing completion and a transition to MNA is imminent.

Aquifer conditions conducive to ERD are not as strong across the major portion of the northern plume. Increasing molarities of the parent compounds, coupled with limited production of *cis*-DCE or vinyl chloride daughter products indicates to RMT that ERD is occurring to a lesser degree than we have observed in the southern and eastern plume areas. Geochemical indicators also support a conclusion that aquifer conditions conducive to ERD are less widely propagated and sustained in this portion of the aquifer.

Three additional injection wells and one additional performance monitoring well are proposed to enhance the performance of ERD in the northern plume. The focus of the proposed new wells is to better position their well screens more strategically across the northern VOC plume and enhance and augment ERD treatment performance in this area.

Modification of the present list of performance monitoring parameters is also recommended. Recent site data suggests that volatile fatty acid (VFA) and sulfate have not been useful indicator parameters that provide value and help RMT assess and evaluate ERD treatment performance. RMT recommends that these parameters be deleted from further use in the site performance monitoring program and future performance monitoring events occur with the reduced parameter list.

# Section 1

## Introduction

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Since submittal of the 2007 Remedial Action Annual Report (RMT, 2008), RMT, Inc. (RMT) has conducted two additional nutrient injection events and two site-wide performance monitoring events at the site. The first of these nutrient injection events was conducted during the period of July and August 2008. This treatment event represented the fifth in a series of lactase-based, nutrient injection events, designed to stimulate growth of naturally occurring anaerobic microbes and adjust aquifer conditions making them more conducive to ERD. The 2008 nutrient injection event was followed by collection and analysis of groundwater and surface water samples from across the site during the period of January and February 2009.

The sixth nutrient injection event was conducted at the site during the period of August and October 2009. Once more, this treatment event was followed by a site-wide performance monitoring event in March 2010. Thus, this 2010 Biennial Progress Report has been prepared to describe these latest nutrient injection events (conducted in 2008 and 2009) and document the results of the performance groundwater and surface water monitoring activities conducted in 2009 and 2010, respectively. Based upon the data and findings from these field activities, RMT has prepared an evaluation of the remedial progress attained to date through the application of ERD treatment measures.

### 1.1 Background

Active remediation of the site was first initiated in March 1995. As specified in the 1991 Record of Decision (ROD), remedial measures were employed to address groundwater and soils affected by VOCs. Accordingly, groundwater recovery and soil vapor extraction (SVE) treatment systems were deployed. Groundwater pump-and-treat (P&T) operations were conducted at the site during the period of March 1995 until August 2004. During this time-frame, RMT personnel conducted all manner of technical maximization measures to enhance recovery of VOCs from subsurface soils and groundwater. During this period of active groundwater P&T operations, approximately 100 million gallons of VOC-affected groundwater were recovered, treated, and discharged via the National Pollutant Discharge Elimination System (NPDES) outfall.

In 2004, RMT conducted a detailed evaluation of site remediation progress and determined that the operational benefits of the ongoing P&T and SVE systems had declined significantly and observed water quality levels had reached asymptotic (steady state) conditions. While these active treatment measures had effectively reduced observed VOC concentrations in



groundwater across the site, residual concentrations of VOCs, above site clean-up levels, remained in several limited areas. It was during this time that RMT proposed modification of the existing site treatment protocols to incorporate ERD as an ICM.

At this time, subsurface water quality conditions across most of the site were predominantly aerobic. The United States Environmental Protection Agency (USEPA) and the South Carolina Department of Health and Environmental Control (SC DHEC) agreed to allow RMT to proceed with ERD treatment efforts at targeted locations across the site as an ICM to determine if the growth of subsurface anaerobic organisms could be stimulated *in situ* and facilitate ERD treatment of VOC residuals to further accelerate clean-up of the affected groundwater and achieve remediation goals established for the site.

In September 2004, RMT began modification of the existing SVE and groundwater P&T systems to accommodate ERD efforts within select site wells. All of the former groundwater recovery wells and many strategically located monitoring wells were retrofitted to receive injection of a lactate-based nutrient suspension that was designed to stimulate the growth of subsurface anaerobic microorganisms responsible for ERD. Following the collection of an initial baseline groundwater quality monitoring event in September 2004, the first lactate-based nutrient injection event commenced in October 2004. Additional lactate injection events were conducted in May/June 2005, November/December 2005, and July/August 2006. After a period of approximately six months, nutrient injection events were followed up by performance monitoring events to evaluate the response of the aquifer to these *in situ* treatment measures. Details of these prior nutrient injection and performance monitoring events have been summarized in previous annual reports that have been submitted to the USEPA and SC DHEC.

## 1.2 Purpose and Scope

This 2010 Remedial Action Biennial Report has been prepared to document the outcome of ERD nutrient injection events conducted in 2008 and 2009, respectively. Furthermore, this report presents the results of performance monitoring sampling that was conducted in 2009 and 2010. These activities have been performed to accelerate treatment of VOC residuals observed at the site, evaluate the performance of ERD treatment measures in achieving the site remedial clean-up objectives, and to develop recommendations to accelerate these ERD treatment efforts and achieve site closure.

The information and details contained in this report includes the following:

- A summary of the recent ERD nutrient injection events.
- Maps depicting water table configuration and groundwater flow direction for the periods of 2009 and 2010.

- Current (2010) interpretations of the distribution of VOCs in groundwater.
- An evaluation of the persistence of the nutrient treatment solution within the aquifer.
- An evaluation of the continued effectiveness of ERD treatment efforts in remediating the site-specific VOCs
- Consideration of additional technical maximization measures to improve the distribution and effectiveness of these ongoing ERD nutrient injections.
- Recommendations for enhancements and modification to the current listing of site indicator parameters to make them more site-specific and appropriate to observed aquifer conditions.

## Section 2

# Enhanced Reductive Dechlorination Nutrient Injections

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During the period of October 2004 through present, RMT has conducted six nutrient injection events. The first four injection events were documented in the following RMT reports, including: *Preliminary Performance Evaluation*, *Initial Enhanced Dechlorination Injection* (RMT, 2005), *2005 Remedial Action Annual Report* (RMT, 2006), *2006 Remedial Action Annual Report* (RMT, 2007), and *2007 Remedial Action Annual Report* (RMT, 2008). The text and graphics which follow are submitted to describe the ERD nutrient injection events that were conducted at the site in July/August 2008 and August/October, 2009.

### 2.1 2008 Nutrient Injection Event

RMT conducted the fifth in a series of targeted nutrient injection events during the period of July through August 2008. During this treatment event, 14 wells were utilized for nutrient injection, including: A-2, A-3, A-4, A-5, A-6, A-7, B-1, B-2, B-3, DP-2-1, DP-3-1, DP-3-2, MW-3D, and MW-4-2. Historically, each injection well has received a nutrient suspension containing a proprietary blend of lactate syrup, sodium bicarbonate, yeast extract, and sodium metabisulfite. These nutrients are then diluted to the appropriate proportions using site groundwater collected from monitoring well BW-3 (situated adjacent to the unnamed tributary to Jones Creek.)

The prescribed application rate for ERD additives has typically been predicated upon the location of each injection point relative to known former VOC source areas. For injection wells located within former VOC source areas (*i.e.*, wells DP-3-1 and DP-3-2), each injection well would typically receive approximately 44,000 gallons of treatment additive over a seven day period. Calculations suggested this treatment approach would develop a radius of influence (ROI) of about 25 feet. For injection wells located along the outer fringe of the residual VOC plume (*i.e.*, the former A-series and B-series groundwater recovery wells), each of these wells would receive approximately 7,000 gallons over a one-day period, resulting in an estimated ROI of approximately 10 feet.

During the July/August 2008 injection event, RMT attempted a more aggressive tactic by introducing as much additional nutrient suspension, as possible, into each of the selected injection wells, limited only by what the aquifer would readily accept. By increasing the volume of treatment additive introduced into specific injection wells, it was RMT's objective to

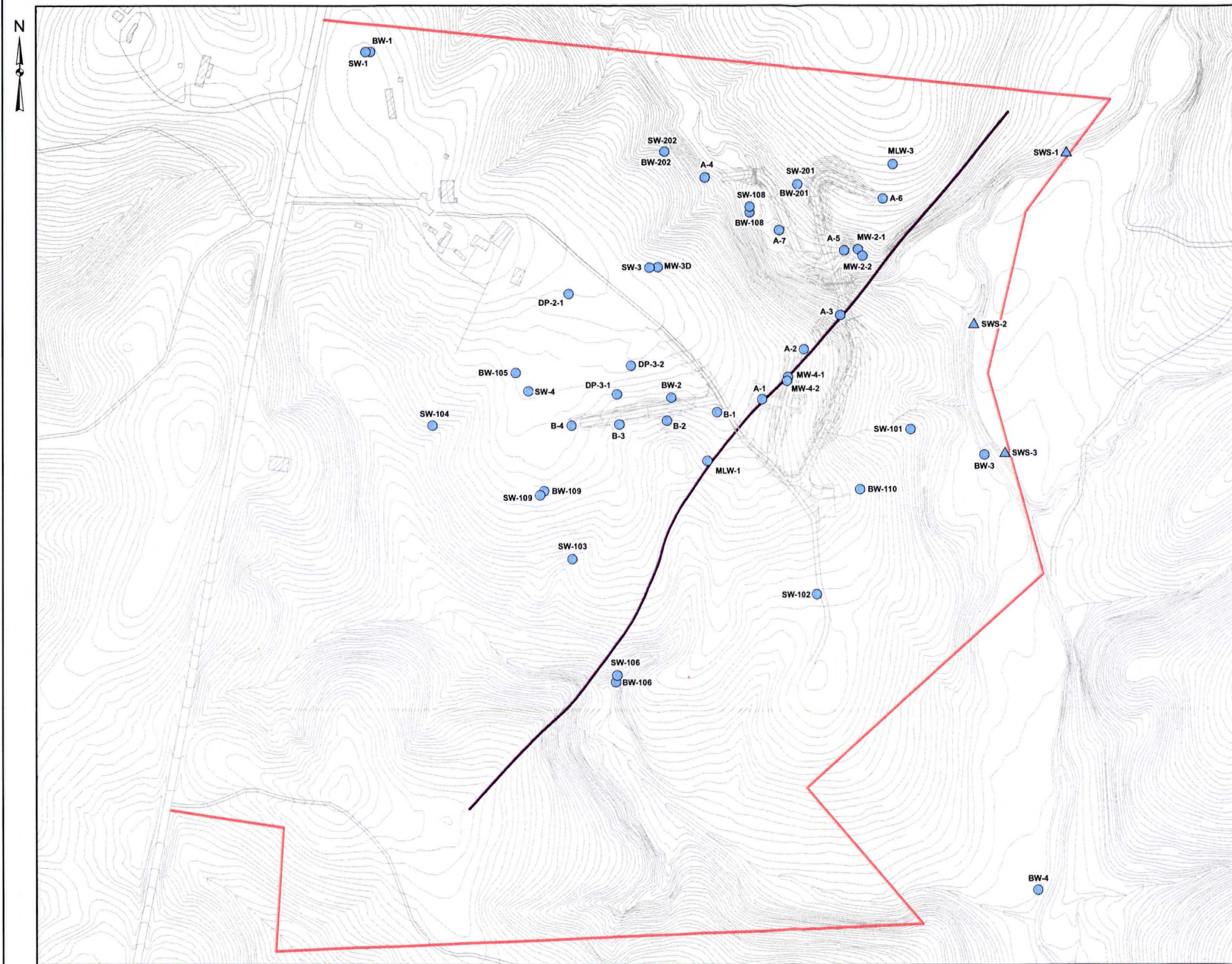
maximize the observed area of influence around each injection well and further optimize conditions for ERD. High volume nutrient injections were focused on those injection wells that were located within the remaining areas displaying residual concentrations of PCE and TCE, as illustrated in the *2007 Remedial Action Annual Report* (RMT, 2008). Thus, the wells receiving higher volume nutrient injections included wells DP-2-1, DP-3-1, MW-3D, A-5, and B-2 (see Figure 2-1). Routine volumes of nutrient were injected into the perimeter and downgradient injection wells. Table 2-1 summarizes the total volumes of nutrient suspension injected into each well during the 2008 injection event. For comparative purposes, Table 2-1 also summarizes total volumes of nutrient ascribed to each prior injection event conducted since the onset of ERD in 2004.

## **2.2 2009 Nutrient Injection Event**

RMT conducted the sixth targeted nutrient injection event during the period of August to October 2009. Again, 14 wells were utilized as injection points, with only minor changes from the 2008 nutrient injection event. O&M repairs were made to the well casing of former recovery well A-1 in 2009. Monitoring well MW-4-2, after having been added to the list of injection wells in 2006 and 2008, was returned to the status of a monitoring well during the 2009 treatment event.

During the August/October 2009 injection event, RMT once more attempted to maximize the introduction of additional nutrient suspension into each of the selected injection wells, where residual VOC concentrations remained most persistent. Higher volume nutrient injections were focused on those wells located within the remaining areas with elevated PCE/TCE concentrations, as interpreted from the January/February 2009 performance monitoring event. Wells receiving the higher volumes of ERD nutrient during the 2009 event included: DP-2-1, A-3, A-5, and MW-3D. Routine volumes of nutrient were injected into the perimeter and downgradient injection wells. Total volumes of nutrient suspension injected into each well during the August-October 2009 event are provided on Table 2-1.

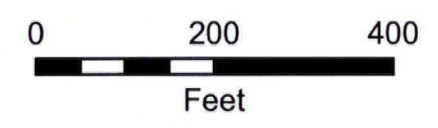




**LEGEND**

- INJECTION OR MONITORING WELL LOCATION
- ▲ SURFACE WATER SAMPLING LOCATION
- FAULT
- PROPERTY BOUNDARY (APPROXIMATE)

**NOTES**



<b>MEDLEY FARM NPL SITE GAFFNEY, SOUTH CAROLINA</b>		
<b>DATA POINT LOCATIONS</b>		
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APPROVED BY: SWW		<b>FIGURE NO.: 2-1</b>
<span style="font-size: 2em; font-weight: bold; letter-spacing: 2px;">RMT</span>		Patewood Plaza One, Suite 100 30 Patewood Drive Greenville, SC 29615-3535 Phone: 864-281-0030 FAX: 864-281-0288



Table 2-1  
Nutrient Injection Summary

INJECTION WELL	VOLUME OF NUTRIENT SUSPENSION (gal)					
	OCT/NOV 04	MAY/JUN 05	NOV/DEC 05	JUL/AUG 06	JUL/AUG 08	AUG/OCT 09
DP-2-1	--	--	--	44,588	61,516	63,459
DP-3-1	44,346	49,392	48,140	51,413	51,883	7,600
DP-3-2	46,968	46,880	47,563	--	8,672	8,364
A-1	6,745	8,583	7,980	7,490	--	5,708
A-2	7,465	7,841	8,620	6,520	7,021	8,178
A-3	8,342	7,865	8,855	6,800	7,236	9,496
A-4	7,181	7,260	3,971	--	4,240	6,893
A-5	7,539	6,542	4,820	5,415	10,142	12,934
A-6	7,261	6,947	6,837	--	6,366	6,699
A-7	6,770	7,482	6,303	--	3,656	7,760
B-1	7,284	7,285	8,990	--	7,530	6,850
B-2	7,917	8,638	8,440	--	57,692	7,550
B-3	7,313	8,857	8,440	--	7,933	7,000
B-4	8,330	6,580	5,222	--	--	--
MW-3D	--	--	4,318	6,710	20,687	11,410
MW-2-1	--	--	--	0 <sup>(1)</sup>	--	--
MW-2-2	--	--	--	0 <sup>(1)</sup>	--	--
MW-4-1	--	--	--	0 <sup>(1)</sup>	--	--
MW-4-2	--	--	--	5820	3366	--
SW-3	--	--	--	0 <sup>(1)</sup>	--	--

<sup>(1)</sup> Well would not accept water.

## Section 3

# Performance Monitoring

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Since December 2004, routine performance monitoring has been conducted to evaluate the progress of ERD treatments in promoting the reduction of site-wide VOC levels and the achievement of groundwater remedial goals. The following site conditions were evaluated as an ongoing part of this performance-based groundwater monitoring program:

- Hydraulic gradients and groundwater flow direction
- Observed changes in groundwater quality affecting VOC degradation potential
- Progress and trends of observed degradation of site VOCs
- Relative persistence of the treatment suspension (injectant) within the aquifer.

Currently, performance monitoring is conducted on an annual basis, approximately six months after a nutrient injection event occurs. Water levels are initially measured in all of the on-site monitoring and injection wells. Groundwater samples are then collected and analyzed for the 15 site-specific constituents of concern (COCs), as well as the field and analytical indicator parameters that have been historically used to evaluate the treatment effectiveness of ERD. Because there exists a strong likelihood that regional groundwater discharges into the surface water of the nearby unnamed tributary to Jones Creek, three surface water samples are collected from strategic locations within the creek and analyzed for the site specific COCs.

The ROD established groundwater remediation goals for each of the 15 site-specific COCs, all of which are considered VOCs, are provided in Table 3-1.

In addition to the site-specific COCs, specific parameters indicative of RD processes are monitored. Table 3-2 summarizes these indicator parameters:

### 3.1 Groundwater Levels and Flow Direction

Site-wide water level measurements were collected from monitoring and injection wells on January 20, 2009 and March 8, 2010. These measurements were used to calculate water table elevations and estimate groundwater flow direction. Table 3-3 summarizes the water level measurement data. Figure 3-1 and Figure 3-2 illustrate the configuration of the water table and interpreted groundwater flow direction on January 20, 2009 and March 8, 2010, respectively. On both dates, groundwater flow was observed in a direction toward the southeast with an average hydraulic gradient of approximately 0.03 to 0.04. These observations remain consistent

with previous site evaluations and data interpretations conducted since shutdown of the groundwater P&T system in 2004.

### 3.2 Results of Groundwater Sampling and Analysis

Site-wide groundwater sampling events were conducted in January 2009 and March 2010. As noted earlier, each groundwater sampling event was conducted approximately six months after an earlier nutrient injection event. Groundwater samples were collected in accordance with the USEPA-approved *Field Sampling and Analysis Plan/Quality Assurance Project Plan* (FSAP/QAPP, RMT, 1992). A revised QAPP (RMT, 2010) has recently been prepared for the site and has recently received USEPA and SC DHEC approval, but after these sampling events were already complete. All additional sampling will be conducted in accordance with the newly approved 2010 FSAP/QAPP.

Performance monitoring groundwater samples were submitted under chain-of-custody to Pace Analytical Laboratory of Green Bay, Wisconsin (Pace). Groundwater samples were analyzed for the site-specific list of VOCs, as well as specific indicator parameters for evaluation of the RD process. Results of the laboratory analyses and field parameter measurements are provided on Table 3-4. Analytical laboratory reports further detailing these analyses are provided in Appendix A.

Seven chlorinated VOCs were detected at concentrations exceeding their respective remediation target levels during one or both of the recent monitoring events. These VOCs include PCE, TCE, *cis*-DCE, 1,1,2-TCA, 1,1-DCE, 1,2-DCA and vinyl chloride. Of these compounds, PCE and TCE remain the most widespread. Figure 3-3 and Figure 3-4 illustrate RMT's interpretation of the current (2010) distribution of PCE and TCE in site groundwater, respectively. RMT's 2010 interpretation of the configuration of PCE and TCE in the northern and eastern plumes is very similar to what was observed in September 2007. However, the configuration of PCE and TCE within the southern plume has diminished considerably, compared to what we observed in September 2007.

ERD generally involves dechlorination of the parent compounds, PCE and TCE, producing daughter products including *cis*-DCE and vinyl chloride. The current (2010) distribution of these two daughter products of PCE and TCE are illustrated on Figure 3-5 and Figure 3-6, respectively. While the configuration of the *cis*-DCE plume has diminished compared to September 2007 sampling event, the distribution of vinyl chloride has expanded. The presence and distribution of these two daughter products, represents compelling evidence (especially vinyl chloride) that ERD is occurring.

In addition to the chlorinated VOCs, benzene was detected in the groundwater sampled from MW-3D in January 2009. Historically, benzene has never been detected in this well. Groundwater sampled from this well in March 2010 did not contain detectable levels of benzene. The collective data analysis from well MW-3D indicates that the January 2009 detection of benzene was an anomalous result.

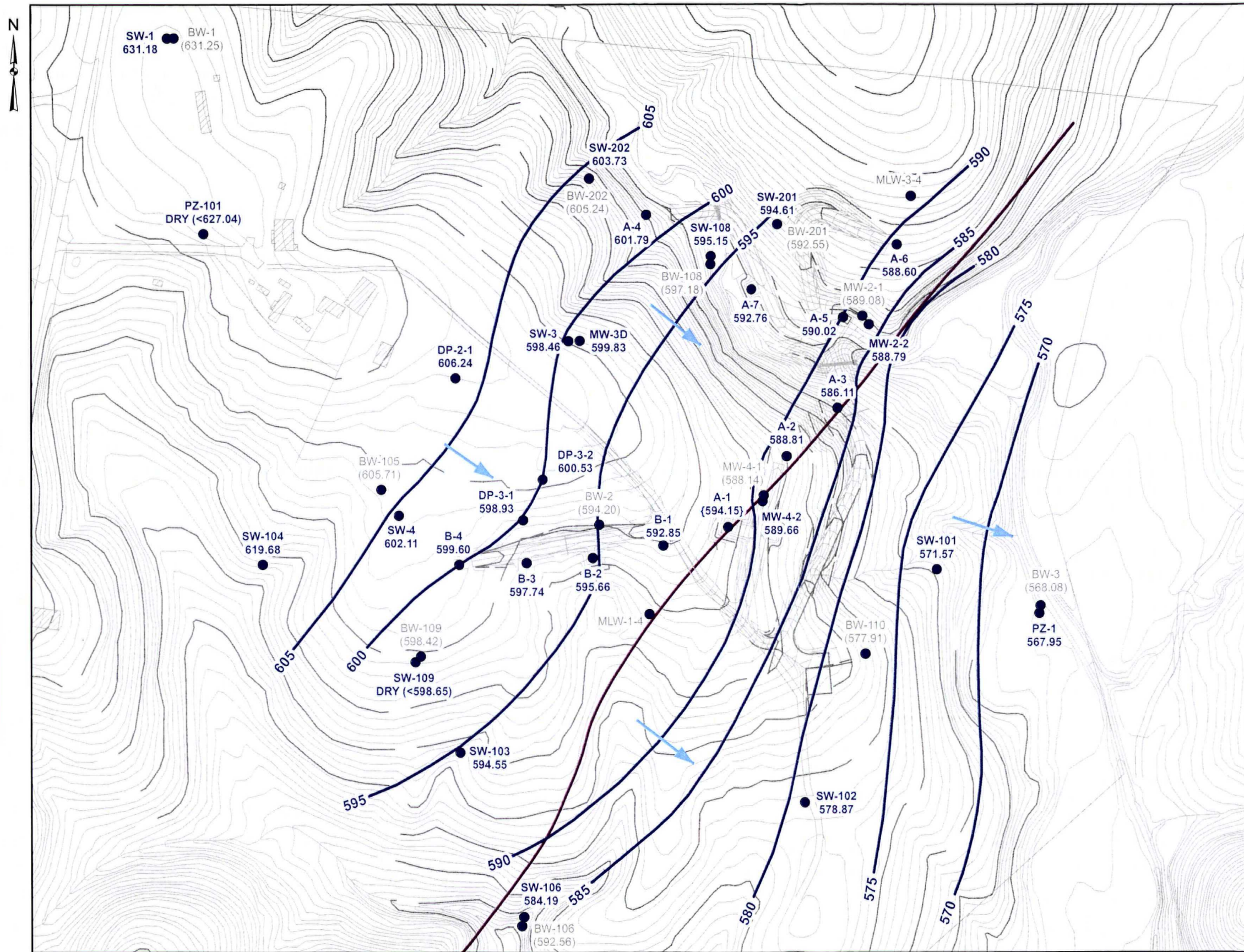
### **3.3 Surface Water Sampling and Analysis**

Surface water sampling from the unnamed tributary to Jones Creek was initiated in June 2008, at the request of USEPA. The three surface water sampling locations, designated SWS-1, SWS-2, and SWS-3, are illustrated on Figure 2-1. Since June 2008, these three surface water sampling locations within the unnamed tributary to Jones Creek have been incorporated into the overall site performance monitoring program.

Surface water samples were collected in January 2009 and March 2010, approximately 6 months after each nutrient injection event. Grab samples were collected at each surface water sampling location, as well as measurement of routine field parameters (*i.e.*, specific conductivity, pH, and temperature).

All surface water samples were submitted under chain-of-custody for analysis by Pace for the site-specific list of VOCs. Table 3-5 summarizes the field and laboratory results derived from these efforts. Laboratory reports are provided in Appendix A. Consistent with past sampling events, VOCs were not detected in any of the surface water sampling stations sampled during the 2009, or 2010 sampling events. These data are compelling evidence that VOC-impacted groundwater of the site is not adversely impacting the water quality of this surface water body.





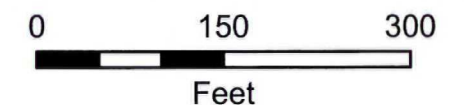
## LEGEND

- MONITORING WELL
- WATER TABLE ELEVATION CONTOUR (FT MSL)
- GROUNDWATER FLOW DIRECTION
- FAULT

## NOTES

POSTED WATER TABLE ELEVATIONS ARE IN FEET

WATER ELEVATIONS SHOWN IN PARENTHESES WERE NOT USED IN PREPARATION OF WATER TABLE CONTOURS



MEDLEY FARM NPL SITE  
GAFFNEY, SOUTH CAROLINA

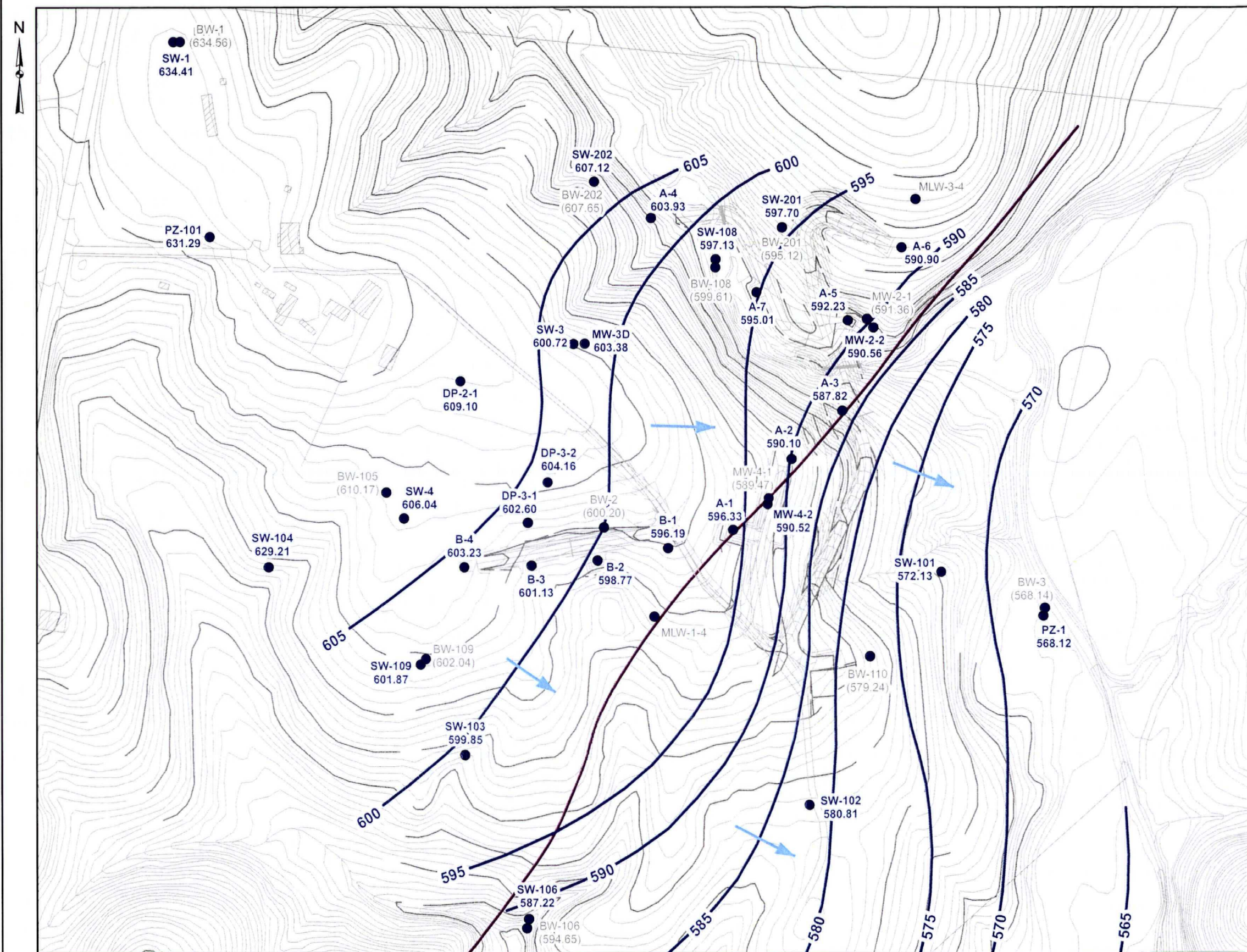
POST INJECTION WATER TABLE CONFIGURATION  
JANUARY 20, 2009

DRAWN BY: TLH	SCALE AS NOTED	PROJECT NO.: 71243.63
CHECKED BY: LMC		DATE: AUGUST 2010
APPROVED BY: SWW		FIGURE NO.: 3-1

**RMT**

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# LEGEND

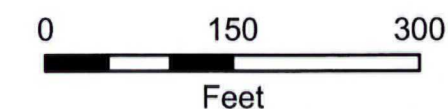
- MONITORING WELL
- WATER TABLE ELEVATION CONTOUR (FT MSL)
- GROUNDWATER FLOW DIRECTION
- FAULT

## NOTES

WATER ELEVATIONS SHOWN IN PARENTHESES WERE NOT USED IN PREPARATION OF WATER TABLE CONTOURS

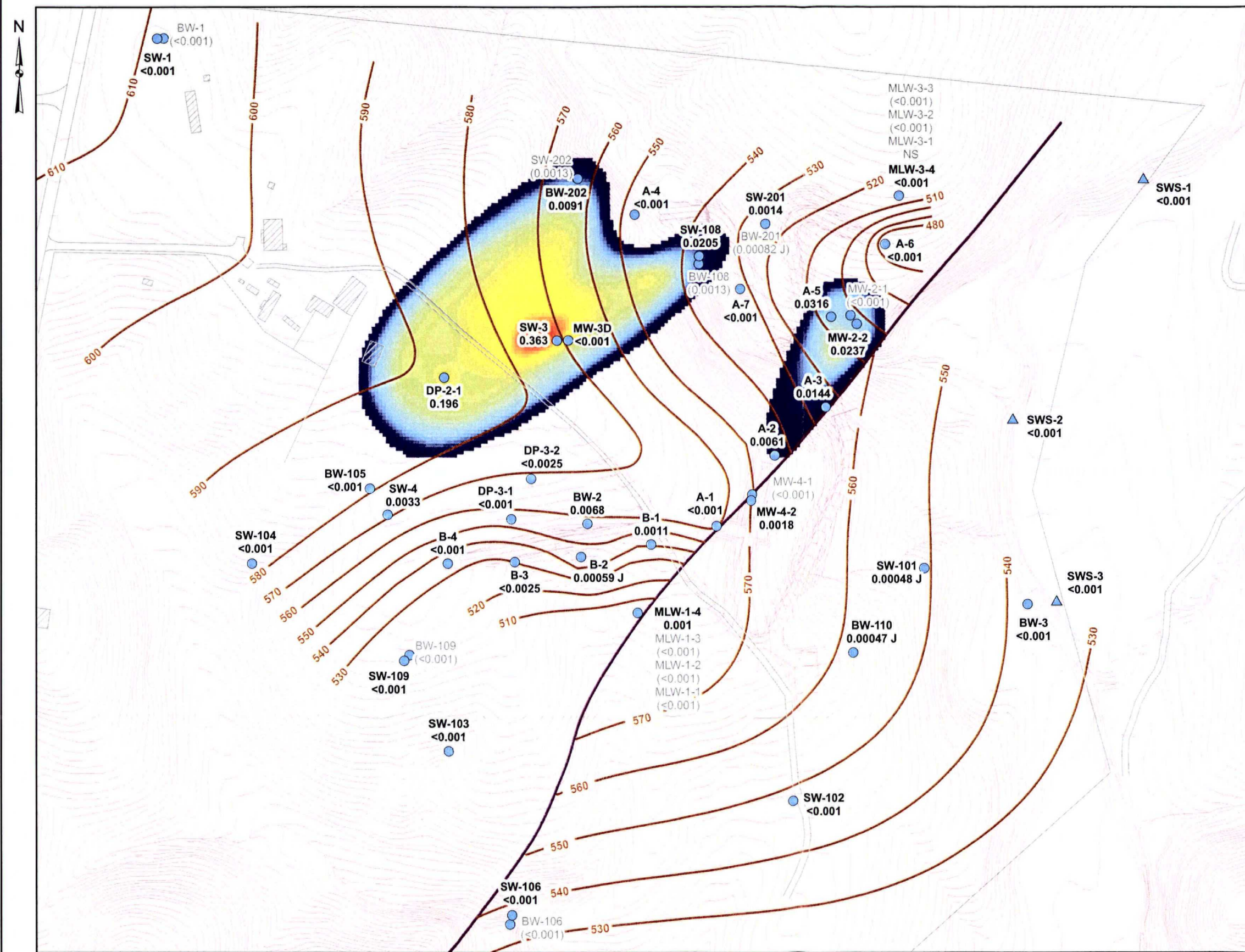
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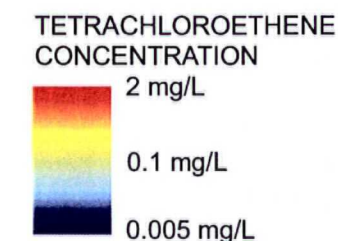
MEDLEY FARM NPL SITE GAFFNEY, SOUTH CAROLINA		
POST INJECTION WATER TABLE CONFIGURATION MARCH 8, 2010		
DRAWN BY: TLH	SCALE AS NOTED	PROJECT NO.: 71243.63
CHECKED BY: LMC		DATE: AUGUST 2010
APPROVED BY: SSW		FIGURE NO.: 3-2
<b>RMT</b>		Patewood Plaza One, Suite 100 30 Patewood Drive Greenville, SC 29615-3535 Phone: 864-281-0030 FAX: 864-281-0288





# LEGEND

- MONITORING WELL
- ▲ SURFACE WATER SAMPLE LOCATIONS
- TOP OF BEDROCK ELEVATION CONTOUR
- FAULT

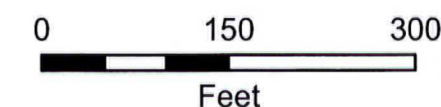


## NOTES

TETRACHLOROETHENE CONCENTRATIONS ARE POSTED IN mg/L

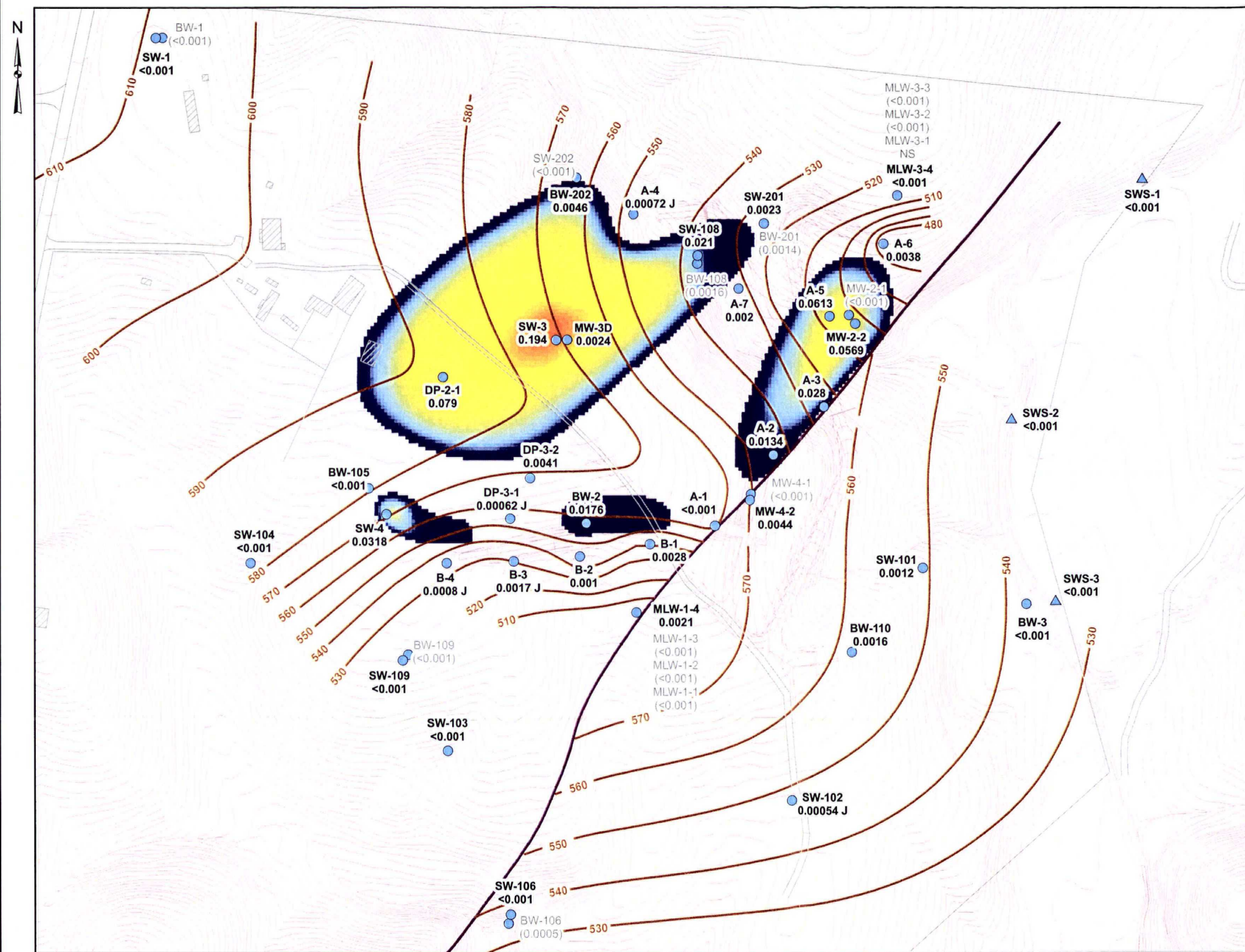
CONCENTRATIONS SHOWN IN PARENTHESES WERE NOT USED IN THE PREPARATION OF PLUME CONTOURS

NS - NOT SAMPLED



MEDLEY FARM NPL SITE GAFFNEY, SOUTH CAROLINA		
DISTRIBUTION OF TETRACHLOROETHENE IN GROUNDWATER MARCH 2010		
DRAWN BY: TLH	SCALE AS NOTED	PROJECT NO.: 71243.63
CHECKED BY: LMC		DATE: AUGUST 2010
APPROVED BY: SWW		FIGURE NO.: 3-3
<b>RMT</b> Patewood Plaza One, Suite 100 30 Patewood Drive Greenville, SC 29615-3535 Phone: 864-281-0030 FAX: 864-281-0288		

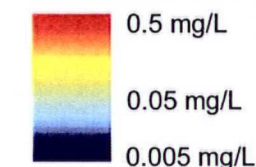




# LEGEND

- MONITORING WELL
- ▲ SURFACE WATER SAMPLE LOCATIONS
- TOP OF BEDROCK ELEVATION CONTOUR
- FAULT

## TRICHLOROETHENE CONCENTRATION

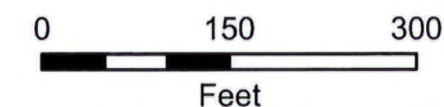


# NOTES

TRICHLOROETHENE CONCENTRATIONS ARE POSTED IN mg/L

CONCENTRATIONS SHOWN IN PARENTHESES WERE NOT USED IN THE PREPARATION OF PLUME CONTOURS

NS - NOT SAMPLED



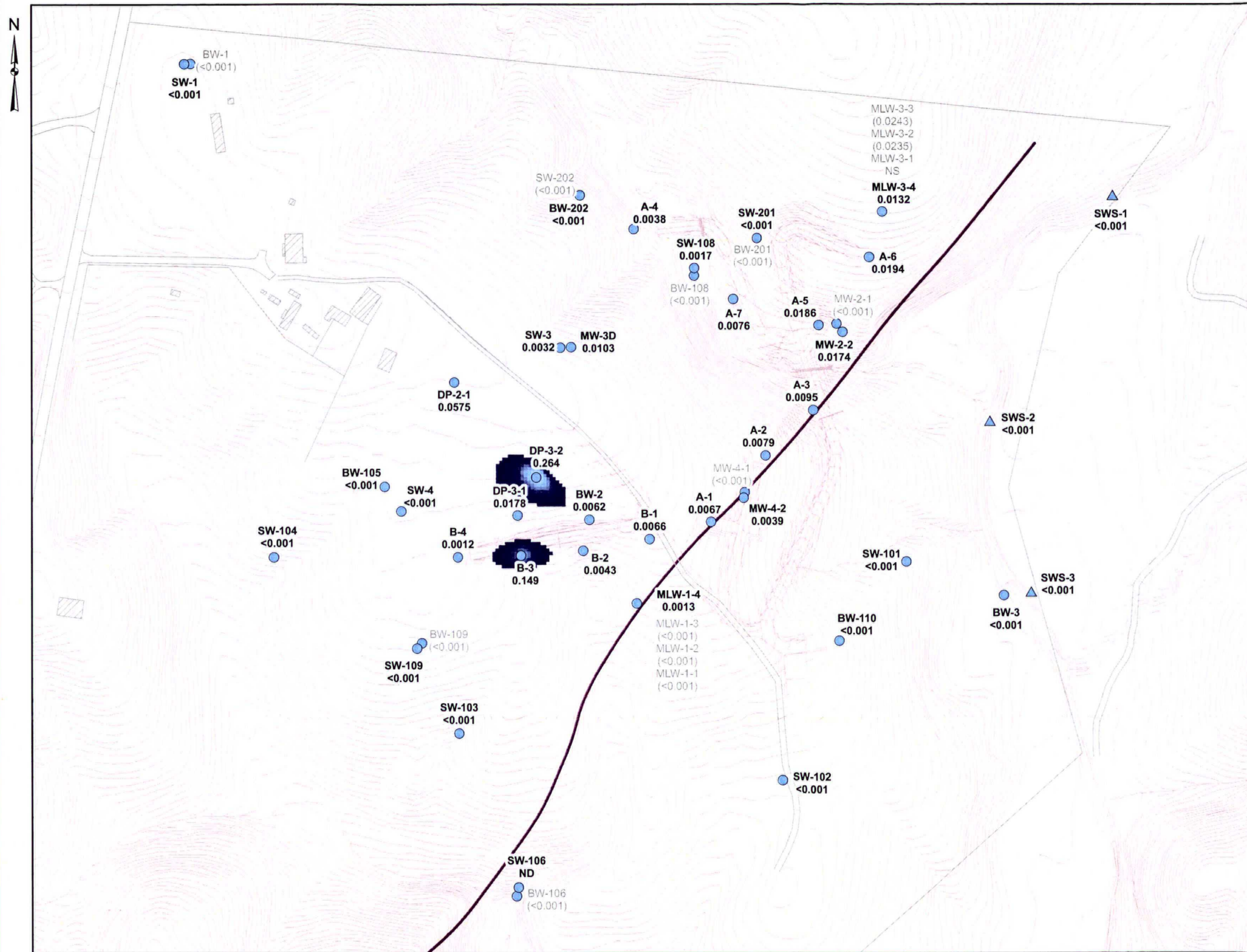
## MEDLEY FARM NPL SITE GAFFNEY, SOUTH CAROLINA DISTRIBUTION OF TRICHLOROETHENE IN GROUNDWATER MARCH 2010

DRAWN BY: TLH	SCALE AS NOTED	PROJECT NO.: 71243.63
CHECKED BY: LMC		DATE: AUGUST 2010
APPROVED BY: SWW		FIGURE NO.: 3-4

**RMT**

Patwood Plaza One, Suite 100  
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FAX: 864-281-0288

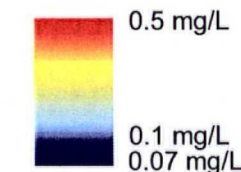




# LEGEND

- MONITORING WELL
- ▲ SURFACE WATER SAMPLE LOCATIONS
- TOP OF BEDROCK ELEVATION CONTOUR
- FAULT

cis-1,2-DICHLOROETHENE CONCENTRATION

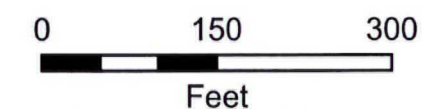


# NOTES

cis-1,2-DICHLOROETHENE CONCENTRATIONS ARE POSTED IN mg/L

CONCENTRATIONS SHOWN IN PARENTHESES WERE NOT USED IN THE PREPARATION OF PLUME CONTOURS

NS - NOT SAMPLED



MEDLEY FARM NPL SITE  
GAFFNEY, SOUTH CAROLINA

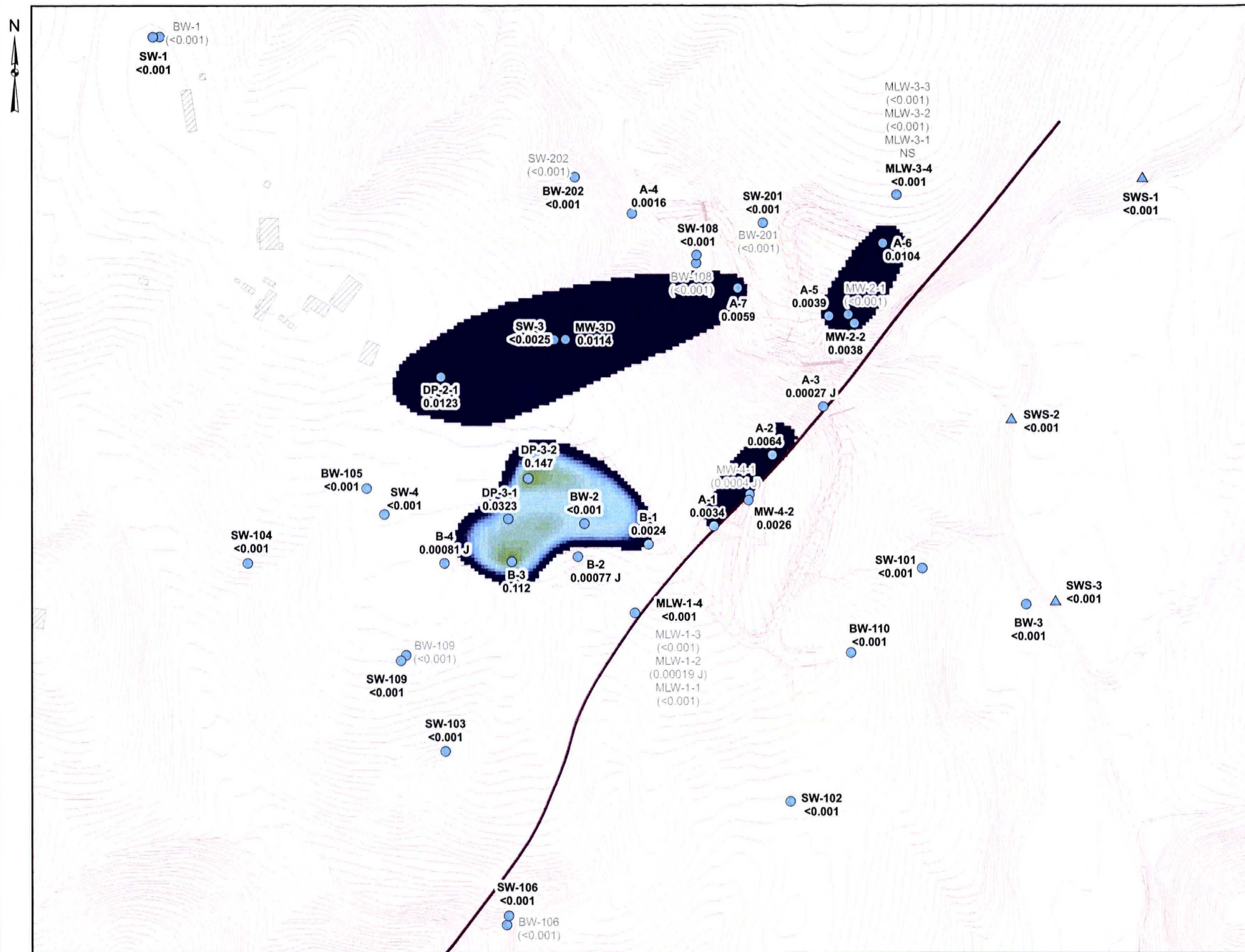
DISTRIBUTION OF cis-1,2-DICHLOROETHENE  
IN GROUNDWATER  
MARCH 2010

DRAWN BY: TLH	SCALE AS NOTED	PROJECT NO.: 71243.63
CHECKED BY: LMC		DATE: AUGUST 2010
APPROVED BY: SWW		FIGURE NO.: 3-5

**RMT**

Patewood Plaza One, Suite 100  
30 Patewood Drive  
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Phone: 864-281-0030  
FAX: 864-281-0288

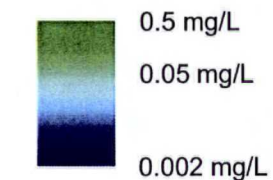




## LEGEND

- MONITORING WELL
- ▲ SURFACE WATER SAMPLE LOCATIONS
- TOP OF BEDROCK ELEVATION CONTOUR
- FAULT

## VINYL CHLORIDE CONCENTRATION

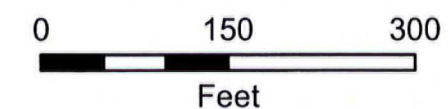


## NOTES

VINYL CHLORIDE CONCENTRATIONS ARE POSTED IN mg/L

CONCENTRATIONS SHOWN IN PARENTHESES WERE NOT USED IN THE PREPARATION OF PLUME CONTOURS

NS - NOT SAMPLED



MEDLEY FARM NPL SITE  
GAFFNEY, SOUTH CAROLINA

DISTRIBUTION OF VINYL CHLORIDE  
IN GROUNDWATER  
MARCH 2010

DRAWN BY: TLH	SCALE AS NOTED	PROJECT NO.: 71243.63
CHECKED BY: LMC		DATE: AUGUST 2010
APPROVED BY: SWW		FIGURE NO.: 3-6

**RMT**

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**Table 3-1  
Site-specific Constituents of Concern and Remediation Goals**

VOC	GROUNDWATER REMEDIATION GOAL (mg/L)
Acetone	0.35
Benzene	0.005
2-Butanone	2.0
Chloromethane	0.063
Chloroform	0.1
1,1-DCA	0.35
1,2-DCA	0.005
1,1-DCE	0.007
1,2-DCE	<i>cis: 0.07 and trans: 0.1</i>
Methylene Chloride	0.005
PCE	0.005
1,1,1-Trichloroethane	0.2
1,1,2-Trichloroethane	0.005
Trichloroethane	0.005

**Table 3-2**  
**Reductive Dechlorination Indicator Parameters**

<b>VOCs</b>	
Chloroethane	Vinyl Chloride
<b>Dissolved Metals</b>	
Ferrous iron	Manganese
<b>Anions</b>	
Sulfate	
<b>VFAs</b>	
Acetic acid	Propionic acid
Butyric acid	Pyruvic acid
Lactic acid	
<b>Field Parameters</b>	
Specific conductance (SC)	Dissolved oxygen (DO)
pH	Oxidation-reduction potential (ORP)
Temperature	

**Table 3-3**  
**Groundwater Elevation Measurements**

WELL NAME	TOP OF CASING ELEVATION (ft)	DATE MEASURED/WATER DEPTH AND ELEVATION			
		01/20/09		03/08/10	
		DEPTH TO WATER (ft)	WATER LEVEL ELEVATION (ft)	DEPTH TO WATER (ft)	WATER LEVEL ELEVATION (ft)
A-1	651.73	57.58	594.15	55.40	596.33
A-2	643.31	54.50	588.81	53.21	590.10
A-3	604.67	18.56	586.11	16.85	587.82
A-4	618.09	16.30	601.79	14.16	603.93
A-5	603.21	13.19	590.02	10.98	592.23
A-6	632.09	43.49	588.60	41.19	590.90
A-7	605.10	12.34	592.76	10.09	595.01
B-1	660.55	67.70	592.85	64.36	596.19
B-2	661.56	65.90	595.66	62.79	598.77
B-3	661.84	64.10	597.74	60.71	601.13
B-4	665.81	66.21	599.60	62.58	603.23
BW-1	689.90	58.65	631.25	55.34	634.56
BW-2	662.99	68.79	594.20	62.79	600.20
BW-3	574.82	6.74	568.08	6.68	568.14
BW-4	564.32	5.90	558.42	5.70	558.62
BW-105	671.55	65.84	605.71	61.38	610.17
BW-106	595.76	3.20	592.56	1.11	594.65
BW-108	605.64	8.46	597.18	6.03	599.61
BW-109	661.47	63.05	598.42	59.43	602.04
BW-110	626.36	48.45	577.91	47.12	579.24
BW-201	618.29	25.74	592.55	23.17	595.12
BW-202	636.79	31.55	605.24	29.14	607.65
DP-2-1	677.84	71.60	606.24	68.74	609.10
DP-3-1	665.78	66.85	598.93	63.18	602.60
DP-3-2	672.83	72.30	600.53	68.67	604.16
MLW-1-1	653.32	--	587.49	--	589.86
MLW-1-2	653.32	--	590.11	--	593.01
MLW-1-3	653.32	--	592.10	--	595.36
MLW-1-4	653.32	--	592.62	--	595.89
MLW-3-1	636.68	--	584.43	--	586.97
MLW-3-2	636.68	--	584.10	--	586.74
MLW-3-3	636.68	--	585.28	--	587.87
MLW-3-4	636.68	--	584.53	--	587.15
MW-2-1	602.80	13.72	589.08	11.44	591.36
MW-2-2	602.42	13.63	588.79	11.86	590.56
MW-3D	670.28	70.45	599.83	66.90	603.38
MW-4-1	644.80	56.66	588.14	55.33	589.47
MW-4-2	644.60	54.94	589.66	54.08	590.52
PZ-1	575.41	7.46	567.95	7.29	568.12
PZ-101	688.49	Dry	NA	57.20	631.29
SW-1	690.47	59.29	631.18	56.06	634.41
SW-3	671.31	72.85	598.46	70.59	600.72
SW-4	671.39	69.28	602.11	65.35	606.04
SW-101	604.18	32.61	571.57	32.05	572.13
SW-102	620.07	41.20	578.87	39.26	580.81
SW-103	635.68	41.13	594.55	35.83	599.85
SW-104	649.85	30.17	619.68	20.64	629.21
SW-106	596.12	11.93	584.19	8.90	587.22
SW-108	605.28	10.13	595.15	8.15	597.13
SW-109	661.26	Dry	NA	59.39	601.87
SW-201	620.68	26.07	594.61	22.98	597.70
SW-202	636.93	33.20	603.73	29.81	607.12



Table 3-4  
Summary of Biennial Groundwater Quality Results

PARAMETER <sup>(1)</sup>	REMEDIATION TARGET <sup>(2)</sup>	A-1	A-2		A-3		A-4		A-5			A-6		A-7		
		03/17/10	01/30/09	03/18/10	02/04/09	03/22/10	02/05/09	03/23/10	02/05/09	03/24/10	(DU-10102) 03/24/10	02/06/09	03/25/10	02/05/09	(DU-09102) 02/06/09	03/26/10
VOCs																
1,1,1-TCA	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-TCA	0.005	<0.001	<0.001	<0.001	<b>0.002</b>	<b>0.0018</b>	<0.001	<0.001	<b>0.0015</b>	<b>0.0012</b>	<b>0.0011</b>	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-DCA	0.35	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-DCE	0.007 <sup>(3)</sup>	<0.001	<0.001	<b>0.00057 J</b>	<b>0.0027</b>	<b>0.0024</b>	<0.001	<0.001	<b>0.0031</b>	<b>0.0028</b>	<b>0.0024</b>	<b>0.00063 J</b>	<b>0.00077 J</b>	<0.001	<0.001	<0.001
1,2-DCA	0.005	<b>0.0014</b>	<b>0.0021</b>	<b>0.0017</b>	<b>0.0015</b>	<b>0.00076 J</b>	<b>0.00094 J</b>	<b>0.0012</b>	<b>0.0042</b>	<b>0.0015</b>	<b>0.0013</b>	<b>0.0018</b>	<b>0.0012</b>	<b>0.00055 J</b>	<b>0.00054 J</b>	<b>0.0023</b>
2-Butanone	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Acetone	0.35	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02 L1	<0.02	<0.02 L1	<0.02	<0.02	<0.02 L1	<0.02	<0.02 L1	<0.02 L1	<b>0.005 J</b>
Benzene	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform	0.1	<0.005	<0.005	<0.005	<b>0.004 J</b>	<b>0.0034 J</b>	<0.005	<0.005	<b>0.0034 J</b>	<b>0.0055</b>	<b>0.0051</b>	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	0.063	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis -1,2-DCE	0.07	<b>0.0067</b>	<b>0.0056</b>	<b>0.0079</b>	<b>0.0115</b>	<b>0.0095</b>	<b>0.0041</b>	<b>0.0038</b>	<b>0.0463</b>	<b>0.0186</b>	<b>0.0191</b>	<b>0.0239</b>	<b>0.0194</b>	<b>0.003</b>	<b>0.0032</b>	<b>0.0076</b>
Methylene chloride	0.005	<0.00049 Z3Ju	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
PCE	0.005	<0.001	<0.001	<b>0.0061</b>	<b>0.0168</b>	<b>0.0144</b>	<0.001	<0.001	<b>0.0173</b>	<b>0.0316</b>	<b>0.0294</b>	<0.001	<0.001	<0.001	<0.001	<0.001
trans -1,2-DCE	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<b>0.00091 J</b>	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TCE	0.005	<b>0.001</b>	<b>0.0017</b>	<b>0.0134</b>	<b>0.0376</b>	<b>0.028</b>	<b>0.0016</b>	<b>0.00072 J</b>	<b>0.0571</b>	<b>0.0613</b>	<b>0.0593</b>	<b>0.0017</b>	<b>0.0038</b>	<b>0.0005 J</b>	<b>0.00065 J</b>	<b>0.0012</b>
Vinyl chloride	0.002 <sup>(3)</sup>	<b>0.0034</b>	<b>0.0087</b>	<b>0.0064</b>	<0.001	<b>0.00027 J</b>	<b>0.0017</b>	<b>0.0016</b>	<b>0.0132</b>	<b>0.0039</b>	<b>0.0039</b>	<b>0.0149</b>	<b>0.0104</b>	<b>0.0014</b>	<b>0.0015</b>	<b>0.0059</b>
Metals																
Manganese, dissolved	--	<b>4.35</b>	<b>6.03</b>	<b>4.33</b>	<b>0.4</b>	<b>0.112</b>	<b>2.61</b>	<b>3</b>	<b>1.3</b>	<b>0.61</b>	<b>0.622</b>	<b>3.17</b>	<b>3.43</b>	<b>2.93</b>	<b>2.92</b>	<b>3.08 P6</b>
Wet Chemistry																
Sulfate	--	<b>4.1</b>	<b>5.4</b>	<b>4.4</b>	<b>4.2</b>	<b>3.9 J</b>	<b>4.5</b>	<b>4.5</b>	<b>5.6</b>	<b>5.0</b>	<b>5.0</b>	<b>5.3</b>	<b>5.0</b>	<b>5.1</b>	<b>5.2</b>	<b>4.7</b>
VFAs																
Acetic acid	--	<b>4.5</b>	<1	<1	<2.2 u	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<b>1 Jj-</b>
Butyric acid	--	<1	<1	<1	<1	<b>0.8 J</b>	<0.3 Ju	<1	<1	<1	<1	<1	<1	<1	<1	<1 uj
Lactic acid	--	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25 uj
Propionic acid	--	<1	<1	<b>0.4 J</b>	<0.2 Ju	<1	<1	<1	<1	<b>1 J</b>	<1	<0.7 Ju	<1	<1	<1	<1 uj
Pyruvic acid	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 uj
Field Measurements																
Conductance, specific (µS/cm)	--	422	300	235	157	147	193	196	167	149	NA	218	211	224	NA	229
Dissolved oxygen (mg/L)	--	4.40	0.63	3.38	1.16	0.75	0.47	0.15	0.65	0.89	NA	0.51	0.09	0.84	NA	0.42
Ferrous iron, dissolved	--	<b>1.5</b>	<b>0.8</b>	<b>1</b>	0	0	<b>1.0</b>	<b>1.5</b>	<b>0.8</b>	<b>0.5</b>	NA	<b>0.9</b>	0	<b>0.9</b>	NA	<b>1.5</b>
ORP (mV)	--	-128 <sup>(4)</sup>	-37.2	145.6 <sup>(4)</sup>	110.1	105.6 <sup>(4)</sup>	29.0	-139.4 <sup>(4)</sup>	44.7	151.5 <sup>(4)</sup>	NA	44.0	30.5 <sup>(4)</sup>	-4.9	NA	4.5 <sup>(4)</sup>
pH (s.u.)	--	6.97	7.02	6.58	6.61	6.21	6.83	6.52	6.90	6.34	NA	6.79	6.53	7.24	NA	6.67
Temperature (°C)	--	17.63	16.68	16.94	16.38	15.95	16.16	17.09	16.60	19.23	NA	16.57	17.66	16.80	NA	18.07

<sup>(1)</sup> Analytical results are reported in mg/L unless otherwise noted.

<sup>(2)</sup> Record of Decision EPA/ROD/R04-91/081 (USEPA; May 28, 1991).

<sup>(3)</sup> State Primary Drinking Water Regulations: R.61-58 (SC DHEC; August 28, 2009).

<sup>(4)</sup> ORP re-measured 05/12/10 due to faulty instrument.

B Analyte was detected in the associated method blank.

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

j Concentration considered an estimate based on data validation.

j- Concentration considered an estimate biased low based on data validation.

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

M Elevated detection limit due to matrix effects.

M0 Matrix spike recovery and/or matrix spike duplicate recover was outside laboratory control limits.

P4 Sample field preservation does not meet USEPA or method recommendations for this analysis.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

u Laboratory reported detection not validated during data validation process.

uj Not detected; quantitation limit may be inaccurate or imprecise.

Z2 Analyte present in the associated method blank above the detection limit.

Z3 Methylene chloride is a common laboratory contaminant. Results from this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.

NA Not analyzed

-- Not available

< Concentration less than the Quantitation Limit or not validated if accompanied by "u" qualifier.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Table 3-4  
Summary of Biennial Groundwater Quality Results

PARAMETER <sup>(1)</sup>	REMEDIATION TARGET <sup>(2)</sup>	B-1		B-2		B-3		B-4		BW-1		BW-2	
		01/21/09	03/09/10	01/22/09	03/10/10	01/22/09	03/10/10	01/22/09	03/11/10	02/06/09	03/31/10	01/27/09	03/16/10
VOCs													
1,1,1-TCA	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-TCA	0.005	<0.001	<0.001	0.0065	<0.001	0.0156	0.0082	<0.001	<0.001	<0.001	<0.001	0.00082 J	0.00084 J
1,1-DCA	0.35	0.00083 J	<0.001	0.0025	<0.001	0.0032	0.0032	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-DCE	0.007 <sup>(3)</sup>	<0.001	<0.001	0.0013	<0.001	0.0011	0.0028	<0.001	<0.001	<0.001	<0.001	0.00058 J	0.0011
1,2-DCA	0.005	0.0026	<0.001	0.0417	<0.001	0.277	0.101	<0.001	<0.001	<0.001	<0.001	0.00041 J	0.00037 J
2-Butanone	2	<0.02 L1	<0.02	<0.02 L1	<0.02	<0.02 L1	<0.05	<0.02 L1	<0.02	<0.02	<0.02	<0.02 L1	<0.02
Acetone	0.35	<0.02 L1	<0.02	<0.02 L1	<0.02	<0.02 L1	<0.05	<0.02 L1	<0.02	<0.02 L1	<0.02	<0.02 L1	<0.02
Benzene	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform	0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0125	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	0.063	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,2-DCE	0.07	0.0113	0.0066	0.0498	0.0043	0.134	0.149	0.001	0.0012	<0.001	<0.001	0.0042	0.0062
Methylene chloride	0.005	<0.001	<0.00059 Z2, Z3Ju	<0.001	<0.001	<0.001	<0.0016 Z2, Z3Ju	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00044 Z3Ju
PCE	0.005	0.00045 J	0.0011	<0.001	0.00059 J	<0.001	<0.0025	<0.001	<0.001	<0.001	<0.001	0.0085	0.0068
trans-1,2-DCE	0.1	<0.001	<0.001	0.0022	<0.001	0.0068	0.0043	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TCE	0.005	0.0021	0.0028	<0.001	0.001	<0.001	0.0017 J	<0.001	0.0008 J	<0.001	<0.001	0.0182	0.0176
Vinyl chloride	0.002 <sup>(3)</sup>	0.0078	0.0024	0.0401	0.00077 J	0.195	0.112	0.00094 J	0.00081 J	<0.001	<0.001	<0.001	<0.001
Metals													
Manganese, dissolved	--	5.76	4.2	4.37	3.3	3.64	3.9	1.76	2.22	<0.00082 BJ <u>u</u>	0.776	0.0037 J	<0.0038 Ju
Wet Chemistry													
Sulfate	--	4.2	4.1	7.0	6.6	5.2	4.2	3.2 J	3.1 J	1.4 J	2.2 J	1.6 J	2.8 J
VFAs													
Acetic acid	--	<1	<1 M	<1	<1	<1	<1	<1	<1	<1	<1 uJ	<1	<1
Butyric acid	--	<1	<1 M	<1	<1	<1	<1	<1	<1	<1	<1 uJ	<1	<1
Lactic acid	--	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25 uJ	<25	<25
Propionic acid	--	<1	<1 M	<1	<1	<1	0.6 J	<1	<1	<0.8 Ju	<1 uJ	<1	1.3
Pyruvic acid	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 uJ	<10	<10
Field Measurements													
Conductance, specific (µS/cm)	--	231	210	298	228	324	300	132	119	97	96	101	111
Dissolved oxygen (mg/L)	--	0.64	0.12	0.44	0.19	0.28	0.15	0.49	0.43	6.74	7.14	5.34	5.19
Ferrous iron, dissolved	--	1.5	0.2	1.0	0.9	0.2	0.2	1.5	0.3	0	0	0	0
ORP (mV)	--	-129.1	8.8 <sup>(4)</sup>	-161.4	-8.6 <sup>(4)</sup>	-105.0	-35.8 <sup>(4)</sup>	-30.3	-59.9 <sup>(4)</sup>	108.2	89.7 <sup>(4)</sup>	137.9	78.5 <sup>(4)</sup>
pH (s.u.)	--	6.70	6.57	7.03	6.68	7.20	7.06	6.55	6.25	6.48	6.45	6.26	5.93
Temperature (°C)	--	16.91	17.81	17.91	17.22	18.25	17.17	17.25	16.98	17.75	18.52	17.91	18.22

<sup>(1)</sup> Analytical results are reported in mg/L unless otherwise noted.

<sup>(2)</sup> Record of Decision EPA/ROD/R04-91/081 (USEPA, May 28, 1991).

<sup>(3)</sup> State Primary Drinking Water Regulations: R.61-58 (SC DHEC, August 28, 2009).

<sup>(4)</sup> ORP re-measured 05/12/10 due to faulty instrument.

<sup>(B)</sup> Analyte was detected in the associated method blank.

<sup>(J)</sup> Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

<sup>(j)</sup> Concentration considered an estimate based on data validation.

<sup>(j-)</sup> Concentration considered an estimate biased low based on data validation.

<sup>(L1)</sup> Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

<sup>(M)</sup> Elevated detection limit due to matrix effects.

<sup>(M0)</sup> Matrix spike recovery and/or matrix spike duplicate recover was outside laboratory control limits.

<sup>(P4)</sup> Sample field preservation does not meet USEPA or method recommendations for this analysis.

<sup>(P6)</sup> Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

<sup>(u)</sup> Laboratory reported detection not validated during data validation process.

<sup>(uj)</sup> Not detected; quantitation limit may be inaccurate or imprecise.

<sup>(Z2)</sup> Analyte present in the associated method blank above the detection limit.

<sup>(Z3)</sup> Methylene chloride is a common laboratory contaminant. Results from this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.

<sup>(NA)</sup> Not analyzed

-- Not available

< Concentration less than the Quantitation Limit or not validated if accompanied by "u" qualifier.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Table 3-4  
Summary of Biennial Groundwater Quality Results

PARAMETER <sup>(1)</sup>	REMEDIATION TARGET <sup>(2)</sup>	BW-3		BW-4		BW-105		BW-106			BW-108	
		01/27/09	03/19/10	01/27/09	03/19/10	01/27/09	03/16/10	01/28/09	(DU-09101) 01/28/09	03/23/10	02/04/09	03/26/10
VOCs												
1,1,1-TCA	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-TCA	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-DCA	0.35	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-DCE	0.007 <sup>(3)</sup>	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-DCA	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2-Butanone	2	<0.02 L1	<0.02	<0.02 L1	<0.02	<0.02 L1	<0.02	<0.02 L1	<0.02 L1	<0.02	<0.02	<0.02
Acetone	0.35	<0.02 L1	<0.02	<0.02 L1	<0.02	<0.02 L1	<0.02	<0.02 L1	<0.02 L1	<0.02	<0.02	<0.02
Benzene	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform	0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	0.063	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,2-DCE	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methylene chloride	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
PCE	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0018	0.0013
trans-1,2-DCE	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TCE	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00049 J	0.0005 J	0.0028	0.0016
Vinyl chloride	0.002 <sup>(3)</sup>	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Metals												
Manganese, dissolved	--	<0.005	0.001 J	0.002 J	0.00072 J	0.0048 J	<0.0045 Ju	<0.005	0.00089 J	0.00041 J	0.236	0.108
Wet Chemistry												
Sulfate	--	4.5	4.8	8.2	8.3	1.4 J	2.0 J	2.5 J	2.5 J	3.1 J	4.6	5.6
VFAs												
Acetic acid	--	<1	<1	<1	2.3	<1	<1	<1	<1	<1	<1	1.1 j-
Butyric acid	--	<1	2.9	<1	<1	<1	<1	<1	<1	<1	<1 Ju	<1 uj
Lactic acid	--	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25 uj
Propionic acid	--	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1 uj
Pyruvic acid	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 uj
Field Measurements												
Conductance, specific (µS/cm)	--	156	149	242	208	117	110	119	NA	123	165	181
Dissolved oxygen (mg/L)	--	2.88	4.13	1.86	1.83	4.61	8.15	4.82	NA	5.37	0.63	0.75
Ferrous iron, dissolved	--	0	0	0	0	0	0	0	NA	0	0	0
ORP (mV)	--	143.8	129.9 <sup>(4)</sup>	125.8	120.4 <sup>(4)</sup>	86.5	93.7 <sup>(4)</sup>	197.2	NA	94 <sup>(4)</sup>	101.7	1.4 <sup>(4)</sup>
pH (s.u.)	--	6.42	6.33	6.88	6.85	6.23	5.92	6.38	NA	6.43	7.02	6.77
Temperature (°C)	--	15.85	16.54	15.05	15.29	18.99	17.88	15.81	NA	16.34	15.77	15.29

<sup>(1)</sup> Analytical results are reported in mg/L unless otherwise noted.

<sup>(2)</sup> Record of Decision EPA/ROD/R04-91/081 (USEPA; May 28, 1991).

<sup>(3)</sup> State Primary Drinking Water Regulations: R.61-58 (SC DHEC; August 28, 2009).

<sup>(4)</sup> ORP re-measured 05/12/10 due to faulty instrument.

B Analyte was detected in the associated method blank.

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

j- Concentration considered an estimate based on data validation.

j+ Concentration considered an estimate biased low based on data validation.

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

M+ Elevated detection limit due to matrix effects.

M0 Matrix spike recovery and/or matrix spike duplicate recover was outside laboratory control limits.

P4+ Sample field preservation does not meet USEPA or method recommendations for this analysis.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

u Laboratory reported detection not validated during data validation process.

uj Not detected; quantitation limit may be inaccurate or imprecise.

Z2 Analyte present in the associated method blank above the detection limit.

Z3 Methylene chloride is a common laboratory contaminant. Results from this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.

NA Not analyzed

-- Not available

< Concentration less than the Quantitation Limit or not validated if accompanied by "u" qualifier.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Table 3-4  
Summary of Biennial Groundwater Quality Results

PARAMETER <sup>(1)</sup>	REMEDIALATION TARGET <sup>(2)</sup>	BW-109		BW-110		BW-201		BW-202		DP-2-1		DP-3-1	
		01/28/09	03/30/10	02/04/09	03/30/10	02/03/09	03/24/10	01/30/09	3/31/2010	01/27/09	03/16/10	01/29/09	03/15/10
VOCs													
1,1,1-TCA	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.004	<0.001	<0.001
1,1,2-TCA	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.004	<0.001	0.0013
1,1-DCA	0.35	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.004	0.0016	0.0021
1,1-DCE	0.007 <sup>(3)</sup>	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.004	<0.001	0.00064 J
1,2-DCA	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0024 J	0.0023 J	0.00057 J	0.0133
2-Butanone	2	<0.02 L1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05 L1	<0.08	<0.02 L1	<0.02
Acetone	0.35	<0.02 L1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05 L1	<0.08	<0.02 L1	<0.02
Benzene	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0034	<0.004	<0.001	<0.001
Chloroethane	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.004	<0.001	<0.001
Chloroform	0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0125	<0.02	<0.005	<0.005
Chloromethane	0.063	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.004	<0.001	<0.001
cis-1,2-DCE	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.099	0.0575	0.0022	0.0178
Methylene chloride	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.002 Z3Ju	<0.001	<0.00047 Z3Ju
PCE	0.005	<0.001	<0.001	<0.001	0.00047 J	0.0019	0.00082 J	0.0068	0.0091	0.403	0.196	<0.001	<0.001
trans-1,2-DCE	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.004	0.0024	0.002
TCE	0.005	<0.001	<0.001	0.00078 J	0.0016	0.0026	0.0014	0.0047	0.0046	0.163	0.079	<0.001	0.00062 J
Vinyl chloride	0.002 <sup>(3)</sup>	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0175	0.0123	0.0029	0.0323
Metals													
Manganese, dissolved	--	0.0022 J	<0.00069 BJ u	0.0015 J	<0.0027 BJ u	0.0194	0.0248	0.0179	0.0232	1.47	1.99	2.24	2.7
Wet Chemistry													
Sulfate	--	1.4 J	2.2 J	9.4	7.7	6.9	2.5 J	5.1	4.4	9.7	7.9	4.4	3.2 J
VFAs													
Acetic acid	--	<1	<1 uj	<1	4.8 j-	<1	<1	<1	<1 uj	<1	<1	<1	<1
Butyric acid	--	<1	<1 uj	<1	<1 uj	<0.7 Ju	<1	<1	<1 uj	<1	<1	<1	<1
Lactic acid	--	<25	<25 uj	<25	3.3 Jj-	<25	<25	<25	<25 uj	<25	<25	<25	<25
Propionic acid	--	<1	0.8 Jj-	<0.3 Ju	<1 uj	<0.5 Ju	<1	<1	<1 uj	<1	<1	<1	<1
Pyruvic acid	--	<10	<10 uj	<10	<10 uj	<10	<10	<10	<10 uj	1.6 J	<10	<10	<10
Field Measurements													
Conductance, specific (µS/cm)	--	99	98	250	242	174	178	195	239	233	214	308	250
Dissolved oxygen (mg/L)	--	6.30	7.08	4.98	6.45	0.79	0.3	5.55	3.69	0.31	0.22	0.57	0.06
Ferrous iron, dissolved	--	0	0	0	0	0	0.05	0	0	1.0	1.5	1.0	1.0
ORP (mV)	--	210.4	117.5	124.9	135.3	106.9	129.3 <sup>(4)</sup>	84.5	131.1 <sup>(4)</sup>	-108.7	32.05 <sup>(4)</sup>	-124.7	-112.2 <sup>(4)</sup>
pH (s.u.)	--	6.10	6.02	7.16	6.85	6.20	6.17	8.79	7.33	6.59	6.43	7.07	6.73
Temperature (°C)	--	16.87	17.26	16.66	16.88	15.99	16.91	15.64	15.45	18.23	17.72	19.21	18.39

<sup>(1)</sup> Analytical results are reported in mg/L unless otherwise noted.

<sup>(2)</sup> Record of Decision EPA/ROD/R04-91/081 (USEPA; May 28, 1991).

<sup>(3)</sup> State Primary Drinking Water Regulations: R.61-58 (SC DHEC; August 28, 2009).

<sup>(4)</sup> ORP re-measured 05/12/10 due to faulty instrument.

B Analyte was detected in the associated method blank.

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

j Concentration considered an estimate based on data validation.

j- Concentration considered an estimate biased low based on data validation.

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

M Elevated detection limit due to matrix effects.

M0 Matrix spike recovery and/or matrix spike duplicate recover was outside laboratory control limits.

P4 Sample field preservation does not meet USEPA or method recommendations for this analysis.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

u Laboratory reported detection not validated during data validation process.

uj Not detected; quantitation limit may be inaccurate or imprecise.

Z2 Analyte present in the associated method blank above the detection limit.

Z3 Methylene chloride is a common laboratory contaminant. Results from this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.

NA Not analyzed

-- Not available

< Concentration less than the Quantitation Limit or not validated if accompanied by "u" qualifier.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Table 3-4  
Summary of Biennial Groundwater Quality Results

PARAMETER <sup>(1)</sup>	REMEDATION TARGET <sup>(2)</sup>	DP-3-2		MLW-1-1	MLW-1-2	MLW-1-3	MLW-1-4		MLW-3-2	MLW-3-3	
		01/29/09	03/15/10	03/09/10	03/09/10	03/09/10	01/23/09	03/09-10/10	03/10/10	01/23/09	03/12/10
VOCs											
1,1,1-TCA	0.2	<0.002	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-TCA	0.005	0.0109	0.0084	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-DCA	0.35	0.0018 J	0.002 J	0.00088 J	0.00087 J	0.0011	<0.001	<0.001	<0.001	0.00078 J	<0.001
1,1-DCE	0.007 <sup>(3)</sup>	0.0011 J	0.0043	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-DCA	0.005	0.286	0.142	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2-Butanone	2	<0.04 L1	<0.05	0.0129 J	0.0079 J	<0.02	<0.02 L1	<0.02	<0.02	<0.02 L1	<0.02
Acetone	0.35	<0.04 L1	<0.05	0.0109 J	0.0113 J	0.0687	<0.02 L1	<0.02	0.007 J	<0.02 L1	<0.02
Benzene	0.005	<0.002	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane	--	<0.002	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform	0.1	<0.01	<0.0125	0.0021 J	0.002 J	0.0021 J	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	0.063	<0.002	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,2-DCE	0.07	0.215	0.264	<0.001	<0.001	<0.001	<0.001	0.0013	0.0235	0.0349	0.0243
Methylene chloride	0.005	<0.002	<0.0012 Z3Ju	<0.0017 Z2, Z3u	<0.0017 Z2, Z3u	<0.0015 Z2, Z3u	<0.001	<0.00053 Z2, Z3Ju	<0.0005 Z2, Z3Ju	<0.001	<0.001
PCE	0.005	<0.002	<0.0025	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
trans-1,2-DCE	0.1	0.0137	0.017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TCE	0.005	0.0017 J	0.0041	<0.001	<0.001	<0.001	0.0009 J	0.0021	<0.001	<0.001	<0.001
Vinyl chloride	0.002 <sup>(3)</sup>	0.176	0.147	<0.001	0.00019 J	<0.001	<0.001	<0.001	<0.001	0.00023 J	<0.001
Metals											
Manganese, dissolved	--	3.25	3.38	0.0528	0.0955	NA	0.0024 J	0.0021 J	0.0141	0.00091 J	0.0044 J
Wet Chemistry											
Sulfate	--	3.4 J	3.5 M0Jj	<4.0	<4.0	181	9.3	9.5	<4.0	3.9 J	2.3 J
VFAs											
Acetic acid	--	<1	<1	7.2 M	24 M	<1 M	<1	<1 M	<1	<1	0.9 J
Butyric acid	--	<1	<1	<1 M	<1 M	<1 M	<1	<1 M	<1	<1	<1
Lactic acid	--	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Propionic acid	--	<1	<1	0.5 JM	4.4 M	2.6 M	<1	<1 M	<1	<1	<1
Pyruvic acid	--	<10	<10	<10	<10	2.5 J	<10	<10	<10	<10	4.5 J
Field Measurements											
Conductance, specific (µS/cm)	--	252	232	258	291	NA	490	NA	183	90	154
Dissolved oxygen (mg/L)	--	0.60	0.08	3.65	6.36	NA	3.83	NA	3.10	8.02	2.54
Ferrous iron, dissolved	--	0.8	1.5	0	0.15	NA	0	NA	NA	0	0
ORP (mV)	--	-76.9	-65.1 <sup>(4)</sup>	63.2	90.0	NA	113.1	NA	128.3	257.1	140.5
pH (s.u.)	--	7.05	6.66	6.51	7.10	NA	7.30	NA	6.35	6.49	6.29
Temperature (°C)	--	18.56	18.60	15.92	18.13	NA	15.20	NA	14.30	15.16	15.71

<sup>(1)</sup> Analytical results are reported in mg/L unless otherwise noted.

<sup>(2)</sup> Record of Decision EPA/ROD/R04-91/081 (USEPA; May 28, 1991).

<sup>(3)</sup> State Primary Drinking Water Regulations: R.61-58 (SC DHEC; August 28, 2009).

<sup>(4)</sup> ORP re-measured 05/12/10 due to faulty instrument.

B Analyte was detected in the associated method blank.

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

j Concentration considered an estimate based on data validation.

j- Concentration considered an estimate biased low based on data validation.

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

M Elevated detection limit due to matrix effects.

M0 Matrix spike recovery and/or matrix spike duplicate recover was outside laboratory control limits.

P4 Sample field preservation does not meet USEPA or method recommendations for this analysis.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

u Laboratory reported detection not validated during data validation process.

uj Not detected; quantitation limit may be inaccurate or imprecise.

Z2 Analyte present in the associated method blank above the detection limit.

Z3 Methylene chloride is a common laboratory contaminant. Results from this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.

NA Not analyzed

-- Not available

< Concentration less than the Quantitation Limit or not validated if accompanied by "u" qualifier.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.



Table 3-4  
Summary of Biennial Groundwater Quality Results

PARAMETER <sup>(1)</sup>	REMEDIAL TARGET <sup>(2)</sup>	MLW-3-4		MW-2-1		MW-2-2		MW-3D			MW-4-1		
		01/23/09	03/12/10	02/03/09	03/12/10	02/03/09	03/09/10	01/29/09	03/31/10	(DU-10103) 03/31/10	01/30/09	03/12/10	
VOCs													
1,1,1-TCA	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.05	<0.001	<0.001	<0.001	<0.001	
1,1,2-TCA	0.005	<0.001	<0.001	<0.001	<0.001	0.00089 J	0.0016	<0.05	0.00064 J	<0.001	<0.001	<0.001	
1,1-DCA	0.35	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.05	<0.001	<0.001	<0.001	<0.001	
1,1-DCE	0.007 <sup>(3)</sup>	<0.001	<0.001	0.00092 J	<0.001	0.003	0.0029	<0.05	<0.001	<0.001	<0.001	<0.001	
1,2-DCA	0.005	<0.001	<0.001	<0.001	0.00043 J	<0.001	0.0012	<0.05	0.0012	0.0014	<0.001	<0.001	
2-Butanone	2	<0.02 L1	<0.02	<0.02	<0.02	<0.02	<0.02	<1 L1	<0.02	<0.02	<0.02	<0.02	
Acetone	0.35	<0.02 L1	<0.02	<0.02	<0.02	<0.02	<0.02	<1 L1	<0.02	<0.02	<0.02	<0.02	
Benzene	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0688	<0.001	<0.001	<0.001	<0.001	
Chloroethane	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.05	<0.001	<0.001	<0.001	<0.001	
Chloroform	0.1	<0.005	<0.005	<0.005	<0.005	0.0042 J	0.0049 J	<0.25	<0.005	<0.005	<0.005	<0.005	
Chloromethane	0.063	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.05	<0.001	<0.001	<0.001	<0.001	
cis -1,2-DCE	0.07	<0.001	0.0132	0.003	<0.001	0.0116	0.0174	<0.05	0.0103	0.011	<0.001	<0.001	
Methylene chloride	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00044 Z2, Z3Ju	<0.05	<0.001	<0.001	<0.001	<0.001	
PCE	0.005	<0.001	<0.001	0.0027	<0.001	0.0231	0.0237	<0.05	<0.001	<0.001	<0.001	<0.001	
trans -1,2-DCE	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.05	<0.001	<0.001	<0.001	<0.001	
TCE	0.005	<0.001	<0.001	0.0079	<0.001	0.0564	0.0569	<0.05	0.0024	0.0023	<0.001	<0.001	
Vinyl chloride	0.002 <sup>(3)</sup>	<0.001	<0.001	<0.001	<0.001	0.0013	0.0038	<0.05	0.0114	0.0123	0.00023 J	0.0004 J	
Metals													
Manganese, dissolved	--	0.0117	NA	0.128	0.0558	1.96	1.36 P4	2.2	2.74	2.74	0.604	0.496	
Wet Chemistry													
Sulfate	--	2.3 J	2.0 J	2.4 J	12.1	5.3	5.4	19.9	7.5	7.7	8.9	3.6 J	
VFAs													
Acetic acid	--	<1	<1	<1 Ju	<1	<1	<1 M	<1	<1 uj	<1 uj	<1	<1	
Butyric acid	--	<1	<1	<1	<1	<1	<1 M	<1	<1 uj	<1 uj	<1	<1	
Lactic acid	--	<25	<25	<25	<25	<25	<25	<25	<25 uj	<25 uj	<25	<25	
Propionic acid	--	<1	<1	<0.6 Ju	<1	<1	<1 M	<1	<1 uj	<1 uj	<0.4 Ju	1.6	
Pyruvic acid	--	<10	1.7 J	<10	<10	<10	<10	<10	<10 uj	<10 uj	<10	<10	
Field Measurements													
Conductance, specific (µS/cm)	--	48	NA	656	436	171	163	507	295	NA	826	475	
Dissolved oxygen (mg/L)	--	7.40	NA	0.60	0.70	0.84	0.59	0.24	0.22	NA	0.84	0.25	
Ferrous iron, dissolved	--	0	NA	1	0.3	3	>1.0	1.5	0.8	NA	0.8	0.8	
ORP (mV)	--	338.9	NA	-103.4	139.6 <sup>(4)</sup>	12.3	128.4 <sup>(4)</sup>	-122.4	-155.8 <sup>(4)</sup>	NA	-83.3	-94.7 <sup>(4)</sup>	
pH (s.u.)	--	6.64	NA	8.10	7.50	6.82	6.43	7.07	7.03	NA	7.45	7.22	
Temperature (°C)	--	14.79	NA	18.92	16.98	17.73	18.18	18.40	18.77	NA	17.47	17.78	

<sup>(1)</sup> Analytical results are reported in mg/L unless otherwise noted.

<sup>(2)</sup> Record of Decision EPA/ROD/R04-91/081 (USEPA; May 28, 1991).

<sup>(3)</sup> State Primary Drinking Water Regulations: R.61-58 (SC DHEC; August 28, 2009).

<sup>(4)</sup> ORP re-measured 05/12/10 due to faulty instrument.

B Analyte was detected in the associated method blank.

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

j Concentration considered an estimate based on data validation.

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L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

M Elevated detection limit due to matrix effects.

M0 Matrix spike recovery and/or matrix spike duplicate recover was outside laboratory control limits.

P4 Sample field preservation does not meet USEPA or method recommendations for this analysis.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

u Laboratory reported detection not validated during data validation process.

uj Not detected; quantitation limit may be inaccurate or imprecise.

Z2 Analyte present in the associated method blank above the detection limit.

Z3 Methylene chloride is a common laboratory contaminant. Results from this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.

NA Not analyzed

-- Not available

< Concentration less than the Quantitation Limit or not validated if accompanied by "u" qualifier.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Table 3-4  
Summary of Biennial Groundwater Quality Results

PARAMETER <sup>(1)</sup>	REMEDIAL TARGET <sup>(2)</sup>	MW-4-2			SW-1		SW-3		SW-4		SW-101		SW-102		
		01/30/09	03/12/10	(DU-10101) 03/12/10	02/08/09	03/31/10	01/29/09	03/31/10	01/28/09	03/16/10	02/03/09	03/24/10	02/03/09	03/30/10	
VOCs															
1,1,1-TCA	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.0025	0.0096	0.0076	<0.001	<0.001	<0.001	<0.001	
1,1,2-TCA	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.0025	0.0022	0.0027	<0.001	<0.001	<0.001	<0.001	
1,1-DCA	0.35	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.0025	0.0014	0.0012	<0.001	<0.001	<0.001	<0.001	
1,1-DCE	0.007 <sup>(3)</sup>	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.0025	0.0307	0.0163	<0.001	<0.001	<0.001	<0.001	
1,2-DCA	0.005	0.0021	0.0011	0.0011	<0.001	<0.001	<0.002	<0.0025	0.00082 J	0.00065 J	<0.001	<0.001	<0.001	<0.001	
2-Butanone	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.04 L1	<0.05	<0.02 L1	<0.02	<0.02	<0.02	<0.02	<0.02	
Acetone	0.35	<0.02	<0.02	<0.02	<0.02 L1	<0.02	<0.04 L1	<0.05	<0.02 L1	<0.02	<0.02	<0.02	<0.02	<0.02	
Benzene	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Chloroethane	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Chloroform	0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.0125	0.0099	0.0081	<0.005	<0.005	<0.005	<0.005	
Chloromethane	0.063	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
cis -1,2-DCE	0.07	0.0018	0.0039	0.0039	<0.001	<0.001	0.006	0.0032	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Methylene chloride	0.005	<0.001	<0.00045 Z2, Z3Ju	<0.001	<0.001	<0.001	<0.002	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
PCE	0.005	<0.001	0.0018	0.0018	<0.001	<0.001	0.274	0.363	0.0038	0.0033	<0.001	0.00048 J	<0.001	<0.001	
trans -1,2-DCE	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
TCE	0.005	<0.001	0.0044	0.0045	<0.001	<0.001	0.18	0.194	0.0398	0.0318	0.00077 J	0.0012	<0.001	0.00054 J	
Vinyl chloride	0.002 <sup>(3)</sup>	0.0066	0.0026	0.0029	<0.001	<0.001	<0.002	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Metals															
Manganese, dissolved	--	4.32	4.07	4.11	<0.0044 BJ u	0.0083	0.66	0.103	0.375	0.325	0.0125	0.0157	0.00098 J	<0.0032 BJ u	
Wet Chemistry															
Sulfate	--	7.5	4.7	4.7	1.4 J	<4.0	3.5 J	2.1 J	1.4 M0Jj	<4.0	5.3	5.4	4.2	4.4	
VFAs															
Acetic acid	--	<1	<1	<1	<1	<1 uj	<1	4.7 j-	<1	<1	<1	<1	<1	<1 uj	
Butyric acid	--	<1	<1	<1	<1	0.8 Jj-	<1	<1 uj	<1	<1	<1	<1	<1	<1 uj	
Lactic acid	--	<25	<25	<25	<25	<25 uj	<25	<25 uj	<25	<25	<25	<25	<25	<25 uj	
Propionic acid	--	<1	<1	<1	<0.6 Ju	<1 uj	<1	<1 uj	<1	<1	<1	0.6 J	<1	<1 uj	
Pyruvic acid	--	<10	<10	<10	<10	<10 uj	<10	<10 uj	<10	<10	<10	<10	<10	<10 uj	
Field Measurements															
Conductance, specific (µS/cm)	--	447	308	NA	71	69	114	90	108	101	116	211	256	276	
Dissolved oxygen (mg/L)	--	1.10	0.37	NA	7.41	8.80	4.08	6.77	5.44	9.44	4.99	4.40	3.05	1.96	
Ferrous iron, dissolved	--	1.0	0.8	NA	0.1	0.05	0	0.05	0	0	0	0	0	0.05	
ORP (mV)	--	-51.7	-45.5 <sup>(4)</sup>	NA	128.0	70.8 <sup>(4)</sup>	53.4	114.2 <sup>(4)</sup>	230.4	74.6 <sup>(4)</sup>	118.7	147.7	83.7	151.3	
pH (s.u.)	--	7.02	6.67	NA	6.21	6.36	6.50	6.35	5.83	5.69	6.50	6.45	6.47	6.16	
Temperature (°C)	--	15.96	17.37	NA	16.80	16.39	13.87	16.25	15.12	15.94	15.19	15.71	16.51	17.63	

<sup>(1)</sup> Analytical results are reported in mg/L unless otherwise noted.

<sup>(2)</sup> Record of Decision EPA/ROD/R04-91/081 (USEPA; May 28, 1991).

<sup>(3)</sup> State Primary Drinking Water Regulations: R-61-58 (SC DHEC; August 28, 2009).

<sup>(4)</sup> ORP re-measured 05/12/10 due to faulty instrument.

B Analyte was detected in the associated method blank.

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

j Concentration considered an estimate based on data validation.

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L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

M Elevated detection limit due to matrix effects.

M0 Matrix spike recovery and/or matrix spike duplicate recover was outside laboratory control limits.

P4 Sample field preservation does not meet USEPA or method recommendations for this analysis.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

u Laboratory reported detection not validated during data validation process.

uj Not detected; quantitation limit may be inaccurate or imprecise.

Z2 Analyte present in the associated method blank above the detection limit.

Z3 Methylene chloride is a common laboratory contaminant. Results from this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.

NA Not analyzed

-- Not available

< Concentration less than the Quantitation Limit or not validated if accompanied by "u" qualifier.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Table 3-4  
Summary of Biennial Groundwater Quality Results

PARAMETER <sup>(1)</sup>	REMEDIATION TARGET <sup>(2)</sup>	SW-103		SW-104		SW-106		SW-108		SW-109	SW-201		SW-202		
		01/28/09	03/30/10	01/28/09	03/30/10	01/21/09	03/23/10	02/04/09	3/26/2010	03/30/10	02/03/09	03/23/10	01/29/09	03/25/10	
VOCs															
1,1,1-TCA	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1,2-TCA	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1-DCA	0.35	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1-DCE	0.007 <sup>(3)</sup>	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,2-DCA	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
2-Butanone	2	<0.02 L1	<0.02	<0.02 L1	<0.02	<0.02 L1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02 L1	<0.02	
Acetone	0.35	<0.02 L1	<0.02	<0.02 L1	<0.02	<0.02 L1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02 L1	<0.02	
Benzene	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Chloroethane	–	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Chloroform	0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0016 J	<0.005	0.0017 J	<0.005	<0.005	<0.005	
Chloromethane	0.063	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
cis -1,2-DCE	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0011	0.0017	<0.001	<0.001	<0.001	<0.001	<0.001	
Methylene chloride	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
PCE	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0141	0.0205	<0.001	0.003	0.0014	0.002	0.0013	
trans -1,2-DCE	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
TCE	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0159	0.021	<0.001	0.0062	0.0023	0.00064 J	<0.001	
Vinyl chloride	0.002 <sup>(3)</sup>	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Metals															
Manganese, dissolved	–	0.117	0.0337	0.0172	0.0046 BJ	0.0072	0.135	0.0795	0.0164	0.017	0.016	0.0011 J	0.106	0.065	
Wet Chemistry															
Sulfate	--	<4.0	<4.0	1.5 J	3.4 J	8.2	8.6	4.6	3.1 J	2.1 J	1.7 J	7.7	2.1 J	2.9 J	
VFAs															
Acetic acid	–	<1	<1 uj	<1	<1 uj	<1	<1	<1	<1 uj	<1 uj	<1	<1	<1	<1	
Butyric acid	–	<1	<1 uj	<1	<1 uj	<1	<1	<1	<1 uj	1.5 j-	<1	<1	<1	<1	
Lactic acid	--	<25	<25 uj	<25	<25 uj	<25	<25	<25	11 Jj-	<25 uj	<25	2.6 J	<25	<25	
Propionic acid	--	<1	<1 uj	<1	<1 uj	<1	<1	<1	<1 uj	<1 uj	<0.3 Ju	<1	<1	<1	
Pyruvic acid	--	<10	<10 uj	<10	<10 uj	<10	<10	<10	<10 uj	<10 uj	<10	<10	<10	3 J	
Field Measurements															
Conductance, specific (µS/cm)	–	78	59	70	71	180	74	131	107	81	129	99	69	62	
Dissolved oxygen (mg/L)	--	6.80	6.70	6.50	6.33	7.07	0.35	3.61	3.63	7.94	5.27	4.52	2.24	4.14	
Ferrous iron, dissolved	--	0	0	0	0.05	0	0	0.2	0	0.05	0	0	0	0	
ORP (mV)	--	212.7	151.2	241.7	108.9	184.9	109.7 <sup>(4)</sup>	118.0	226.8	131.5	107.7	145.8 <sup>(4)</sup>	46.9	177.4 <sup>(4)</sup>	
pH (s.u.)	--	5.89	5.51	5.74	5.55	6.21	5.58	6.42	5.91	6.06	6.09	5.88	5.84	5.79	
Temperature (°C)	–	15.97	15.99	15.81	17.98	14.23	12.21	12.62	13.03	16.29	15.63	15.58	14.92	17.07	

<sup>(1)</sup> Analytical results are reported in mg/L unless otherwise noted.

<sup>(2)</sup> Record of Decision EPA/ROD/R04-91/081 (USEPA; May 28, 1991).

<sup>(3)</sup> State Primary Drinking Water Regulations: R.61-58 (SC DHEC; August 28, 2009).

<sup>(4)</sup> ORP re-measured 05/12/10 due to faulty instrument.

B Analyte was detected in the associated method blank.

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

j Concentration considered an estimate based on data validation.

j- Concentration considered an estimate biased low based on data validation.

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

M Elevated detection limit due to matrix effects.

M0 Matrix spike recovery and/or matrix spike duplicate recover was outside laboratory control limits.

P4 Sample field preservation does not meet USEPA or method recommendations for this analysis.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

u Laboratory reported detection not validated during data validation process.

uj Not detected; quantitation limit may be inaccurate or imprecise.

Z2 Analyte present in the associated method blank above the detection limit.

Z3 Methylene chloride is a common laboratory contaminant. Results from this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.

NA Not analyzed

-- Not available

< Concentration less than the Quantitation Limit or not validated if accompanied by "u" qualifier.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

**Table 3-5**  
**Summary of Biennial Surface Water Quality Results**

PARAMETER <sup>(1)</sup>	STATION/SAMPLE DATE								
	SWS-1			SWS-2			SWS-3		
	06/30/08	01/23/09	03/18/10	06/30/08	01/23/09	03/18/10	06/30/08	01/23/09	3/18/2010
<b>VOCs</b>									
1,1,1-TCA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-TCA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-DCA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-DCE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-DCA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2-Butanone	<0.005	<0.02L1	<0.02	<0.005	<0.02L1	<0.02	<0.005	<0.02L1	<0.02
Acetone	<0.005L3	<0.02L1	<0.02	<0.005L3	<0.02L1	<0.02	<0.005L3	<0.02L1	<0.02
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,2-DCE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methylene chloride	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00045Z3Ju	<0.001	<0.001	<0.00049Z3Ju
PCE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,2-DCE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
TCE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl chloride	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
<b>Field Parameters</b>									
Conductance, specific (µs/cm)	64.0	55.2	52	73.4	57	56	74.1	138	47
pH (s.u.)	6.97	7.33	7.60	6.82	7.27	7.58	6.62	7.30	7.45
Temperature (°C)	22.9	6.4	13.00	24.3	6.10	13.09	22.9	8.50	13.46

<sup>(1)</sup> Analytical results are reported in mg/L unless otherwise noted.

< Concentration less than the Quantitation Limit or not validated if accompanied by "u" qualifier.

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

L1 Analyte recovery in the laboratory control sample was above the QC limits. Results may be biased high.

L3 Analyte recovery in the LCS exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

Z3 Methylene Chloride is a common laboratory contaminant. Results for this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.

NA Not analyzed.

## Section 4

# Enhanced Reductive Dechlorination Performance Evaluation

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ERD was initially implemented at the site as an ICM to determine if *in situ* anaerobic microbes could be stimulated to grow and treat residual levels of VOC observed at the site and accelerate attainment of the groundwater remediation goals established for the site. The objectives of ERD treatment at the site include the following:

- Establish reducing conditions within known former VOC source areas across the site and within subsurface groundwater locations to facilitate growth of anaerobic microbes responsible for ERD.
- Limit lateral and vertical migration and transport of chlorinated compounds in the site groundwater.
- Promote active treatment of residual VOCs in groundwater to facilitate and augment naturally occurring attenuation processes.

Multiple lines of evidence have been acquired and used to assess the overall performance of ERD treatments in achieving these remedial objectives. These lines of evidence include assessment and evaluation of site-wide VOC concentrations and distribution, observed changes in the presence and absence of PCE/TCE daughter products generated during ERD, and observed changes in the groundwater geochemistry.

Data evaluation included preparation of VOC distribution maps, time versus concentration graphs and molar ratio graphs. Time versus concentration graphs (Appendix B) were prepared using one-half the detection limit for constituents reported as not detected at a detection limit at or below their respective clean-up goal. RMT's use of one-half the detection limit is considered a standard practice in data trend evaluation, to account for the potential presence of a constituent below the analytical detection limit. Molar ratio graphs (Appendix C) were prepared by assigning zero to constituents reported as not detected at a detection limit at or below the clean-up goal. Zero was assigned to non-detected constituents to prevent the mistaken conclusion that daughter products had been generated in samples where daughter products were not actually detected. VOC graphs and changes in distribution are discussed in the following section.



## 4.1 Volatile Organic Compounds

Reduction in the concentration and distribution of chlorinated parent compounds (PCE and TCE) and the associated changes in the concentration of daughter products (*cis*-DCE and vinyl chloride) were taken as primary lines of evidence used to evaluate the effectiveness of ERD at the site.

As illustrated on Figure 4-1, a considerable reduction in the VOC groundwater plume was observed since ERD was initiated at the site in October 2004. The yellow shading on Figure 4-1 illustrates the estimated extent of PCE and TCE parent compounds present in groundwater at concentrations above remediation goals based on groundwater data collected during or before the September 2004 baseline groundwater sampling event, prior to implementation of ERD. The blue shading on Figure 4-1 illustrates the current (2010) extent of PCE and TCE in groundwater above remediation goals. Substantial improvement in groundwater quality has occurred, particularly in groundwater beneath the former source areas. This figure clearly illustrates that since initiation of ERD, what was once a site-wide, single VOC plume has evolved into smaller fragmented remnants. As presented in the *2007 Remedial Action Annual Report* (RMT, 2008), these remnant VOC plumes have been termed the northern, eastern, and southern plumes.

The reason for the observed reduction in distribution of PCE/TCE (and subsequent development of remnant plumes) can be seen in the time versus concentration and molar ratio graphs prepared for injection wells DP-3-1, DP-3-2, B-3, and A-7. Figure 4-2 illustrates decreasing concentrations of PCE and TCE over time, with current concentrations below applicable clean-up goals. Figures 4-2 and 4-3 both illustrate a corresponding increase in the production of daughter products *cis*-DCE and vinyl chloride, strong evidence of the ERD process. Geochemical parameters ORP and DO, included on Figure 4-3, illustrate that when conditions conducive to ERD are maintained (*i.e.*, negative ORP and low DO), the RD process is very effective at remediating VOC compounds.

Substantial progress toward attainment of groundwater remedial goals has been made in a large portion of the site using ERD. Three smaller areas of the site still contain concentrations of VOCs at levels above remedial goals. The following text provides a discussion and evaluation of these three limited areas of remaining VOC plumes, particularly as each VOC plume has responded to ongoing ERD treatments.

### 4.1.1 Northern Plume

The residual northern VOC plume most likely originated beneath former SVE Area 1 and SVE Area 2. According to RMT's 2007 conceptual site model, during the initial

release, VOC compounds migrated from the former source areas (including SVE Area 1 and Area 2) and moved vertically through the unsaturated soils to groundwater. PCE and TCE, being heavier than groundwater, continued migrating vertically through the saturated saprolite and weathered bedrock zones. Upon encountering competent bedrock, these denser-than-water constituents likely migrated northeastward, along the bedrock surface producing the northeastward trending plume currently observed. PCE/TCE dissolved in groundwater was also carried, but to a lesser extent, to the east-southeast, in the direction of groundwater flow. Performance standard verification borings (PSVBs) conducted in SVE Area 1 and Area 2 in 1999 demonstrated that SVE treatment of the unsaturated soils in these former source areas was successful and achieved the remedial objectives set forth in the ROD. Groundwater samples collected from temporary monitoring wells in this area still contained VOCs at concentrations above groundwater remedial goals.

VOC data collected from four wells located within the northern plume area (DP-2-1, MW-3D, SW-108, and BW-202) were evaluated to assess the performance and progress of ERD in this portion of the site. Wells DP-2-1 and MW-3D are both used as injection wells to deliver lactate treatments into the aquifer. Well DP-2-1 is also located within a former VOC source area, situated near former SVE Areas 1 and 2. As a former groundwater recovery well, DP-2-1 is screened across a significant portion of the VOC plume in this area. MW-3D is centrally located within the northern plume, but was constructed with a much shorter well screen that is positioned near the base of the VOC plume, thus limiting its ability to effectively transmit significant ERD treatment amendments into the aquifer. Wells BW-202 and SW-108 are performance monitoring wells that are located near the northeastern edge of the northern plume, with SW-108 located hydraulically downgradient from injection well A-4. Time versus concentration graphs for these wells are provided in Appendix B. Molar ratio graphs are provided in Appendix C.

Fluctuations can be observed in the concentrations of PCE and TCE in groundwater sampled from well DP-2-1, with an apparent increasing trend observed during the period between 2007 and 2009. A subsequent decline in PCE and TCE concentrations was subsequently observed between 2009 and 2010. Increasing molarities of daughter products (*cis*-DCE and vinyl chloride) provide evidence of ERD occurring within this portion of the plume.

An overall decrease in PCE/TCE concentrations observed in groundwater samples collected from well MW-3D is taken as a positive sign. Similarly, apparent changes in the concentration of daughter products (like *cis*-DCE) and the corresponding increase

and subsequent decrease in the molarity of *cis*-DCE and vinyl chloride provides strong evidence of the effectiveness of ERD in this portion of the northern plume.

PCE and TCE concentrations have been observed to be steady or increasing from groundwater samples collected from wells SW-108 and BW-202. Increasing molarities of the parent compounds, coupled with minimal production of *cis*-DCE or vinyl chloride daughter products indicates to RMT that ERD is not occurring as well in this portion of the plume. Geochemical indicators (discussed later in this section) also support a conclusion that aquifer conditions more conducive to ERD are not being strongly established in this portion of the aquifer. After examining the well screen lengths and depths of these injection points used in this area of the site, RMT has concluded that the reason for these observations can be attributed to the limited number of available injection points that are screened across the highest VOC intervals of the northern plume. Later in this report, RMT has described recommendations for enhancing introduction of ERD additives and improving subsequent performance monitoring in this plume area.

#### **4.1.2 Eastern Plume**

VOC data from four wells located within and adjacent to the eastern plume (A-2, A-5, MW-2-2, and A-6) were evaluated to assess the progress and performance of ERD in this portion of the site. Wells A-2, A-5, and A-6 have been previously used for injection of lactate media into the aquifer. Wells A-5 and MW-2-2 are both located within the central portion of the eastern VOC plume, with monitoring well MW-2-2 located hydraulically downgradient of injection well A-5. Well A-2 is located near the southern boundary of the eastern plume, along the fault zone. Well A-6 is located along the northern end of the eastern plume. Time versus concentration graphs for these wells are provided in Appendix B. Molar ratio graphs are provided in Appendix C.

Increasing concentrations of PCE and TCE were observed in the groundwater sampled from well A-5 between 2006 and 2010. Increasing molarities of daughter products (*cis*-DCE and vinyl chloride) provide evidence of ERD occurring in this portion of the plume.

Increasing concentrations of parent and daughter compounds are evident in groundwater sampled from well MW-2-2. Increasing molarities of daughter products (*cis*-DCE and vinyl chloride) provides good evidence that ERD is occurring in this portion of the plume. The appearance of vinyl chloride, the reduction in DO concentration, and change from positive to negative ORP in November 2006 suggests to RMT that two years after the initial injection into well A-5, evidence of ERD could be

observed in downgradient monitoring well MW-2-2. These data provide evidence of the extent of influence as well as persistence of the amendments within the aquifer.

Decreasing concentrations of PCE and TCE in groundwater sampled from injection well A-2 combined with increasing and subsequent decreasing molar concentration of *cis*-DCE and vinyl chloride provide strong evidence of good ERD response between September 2004 and February 2006. While PCE and TCE were again detected in groundwater from well A-2 beginning in November 2006, the continued presence of daughter products in groundwater from this well indicates that ERD is ongoing in this portion of the plume.

Decreasing concentrations of PCE and TCE in well A-6 combined with increasing concentrations of daughter compounds *cis*-DCE and vinyl chloride also illustrate the effectiveness of RD in this portion of the site.

Overall, RMT sees the groundwater quality of this area of the site as showing a positive response to ERD. PCE/TCE in groundwater of the perimeter wells are stable to declining in concentration, indicating that the eastern plume is not expanding. Geochemical indicators show strong evidence of ERD throughout the eastern plume. Based on the groundwater quality data, RMT believes that active remedial measures in this portion of the site are nearing completion and transition into MNA is imminent.

#### **4.1.3 Southern Plume**

VOC data from the four wells located within the area of the southern plume (B-1, B-3, BW-2, and SW-4) were evaluated to assess the progress and extent of ERD in this portion of the site. Wells B-1 and B-3 have both been used for injection of lactate solution into the aquifer. Well SW-4 is located hydraulically upgradient of the B-line of nutrient injection wells. Well BW-2 is centrally located within what remains of the southern plume, and hydraulically downgradient from injection well DP-3-2. Time versus concentration graphs for these wells are provided in Appendix B. Molar ratio graphs are provided in Appendix C.

Increasing molarities of daughter products, combined with the essential elimination of parent compounds in well B-3, provides strong evidence of the effectiveness of ERD treatment processes in this portion of the southern plume. This is supported by the data collected from well B-1, with an overall decrease in the molarity of parent compounds coupled with an increase and subsequent decrease in the molarity of daughter products.

Relatively stable concentrations of PCE and TCE in groundwater from well BW-2 as well as the observed trends of geochemical indicators suggests that aquifer conditions may be less conducive to ERD in this portion of the southern plume. Molar concentrations of the parent compounds PCE and TCE have remained relatively stable since September 2005. The apparent increase in molarity of *cis*-DCE in well BW-2 may be due to ERD, however, we also see elevated levels of DO and more positive ORP levels in this well. Thus, detections of *cis*-DCE may be more likely attributable to migration of the more soluble *cis*-DCE from injection well DP-3-2.

VOC concentrations and geochemical indicators in well SW-4 show less evidence of ERD influence. Molar concentrations of parent compounds PCE and TCE have remained essentially unchanged with no detectable degradation to daughter compounds. A slight reduction in TCE concentration has been observed over time.

Overall, the groundwater quality in the area of the eastern plume shows a positive response to ERD. The size of the PCE/TCE plume in this portion of the site has shrunk considerably compared to previous site evaluations and data interpretations. With few exceptions, geochemical indicators show strong evidence of the RD process. In the two wells apparently not measurably influenced by ERD, attenuation of VOCs is still observed. Based on the groundwater quality data, it is RMT's opinion that active remedial measures are no longer necessary in this portion of the site and a transition to MNA is appropriate.

## **4.2 Geochemical Indicator Parameters**

Geochemical indicator parameters are evaluated to assess aquifer conditions conducive to ERD as well as assess the extent of influence of the injections. Geochemical indicator data were both evaluated as within discrete data points and, in some cases, within larger groupings of monitoring wells. Wells were grouped according to their position with regard to their proximity to active treatment zones. An active treatment zone is loosely described by those wells that were used for injection of lactate-base treatment media and those wells immediately adjacent to, or downgradient of the injection wells and expected to be within their radius of influence. The list of the wells grouped as located within the "active treatment zone" is provided in Appendix D.

### **4.2.1 Oxidation Reduction Potential**

Negative ORP in groundwater provides an indication of aquifer conditions that are more conducive to ERD. As shown on the histogram provided in Appendix D, wells located within the active treatment zones generally exhibit a negative ORP, while wells located beyond the influence of the active treatment zone generally reveal more positive ORP



values. Since the performance monitoring sampling event was conducted six months following the latest nutrient injection, it was encouraging to note that ORP measurements remained negative in six of the 14 injection wells and three of the surrounding monitoring wells, a positive sign that conditions conducive to ERD are being developed and sustained in the aquifer. As illustrated on the molar concentration graphs provided in Appendix C, there also appears to be a direct correlation between negative ORP and the progression of the dechlorination process from parent (PCE/TCE) compounds to daughter (*cis*-DCE/vinyl chloride) compounds. ORP continues to be a consistent and reliable field measurement for assessing ERD performance and the overall dechlorination process.

#### **4.2.2 Dissolved Oxygen**

The addition of sodium lactate (electron donor) to the aquifer stimulates bacterial growth that quickly consumes available DO. Sodium metabisulfite is also injected into each well as an oxygen scavenger to further promote and establish conditions conducive to ERD. Groundwater in the wells located within the active treatment zones reveal a significant decrease in DO levels, as compared to the September 2004 baseline sampling event. As illustrated by the histogram included in Appendix D, DO levels within most of the wells within the active treatment zones have been reduced to concentrations less than 1.0 mg/L. These DO levels are positive evidence that site conditions are conducive to ERD. The distribution of DO in groundwater at concentrations less than 1.0 mg/L also provides a good indication of the extent of impact of the nutrient injections within the aquifer.

#### **4.2.3 Dissolved Ferrous Iron**

With the depletion of oxygen from the aquifer, the indigenous microbial community shifts its attention towards finding and consuming alternative electron acceptors, such as ferric iron and sulfate. Under anaerobic conditions, ferric iron ( $\text{Fe}^{+3}$ ) can be reduced to soluble ferrous iron ( $\text{Fe}^{+2}$ ). Measurement of  $\text{Fe}^{+2}$  in groundwater can provide useful indications of ongoing ERD.

Groundwater within the active treatment zones generally displayed levels of  $\text{Fe}^{+2}$  at concentrations of 0.1 ppm or higher, while those wells situated outside of the active treatment area displayed levels of  $\text{Fe}^{+2}$  at concentrations less than 0.1 ppm (see histogram, Appendix D). Concentrations of  $\text{Fe}^{+2}$  within the groundwater above historic background levels are taken as good indication of ERD and evidence of the areal extent of the observed treatment area.

#### 4.2.4 Dissolved Manganese

Concentrations of dissolved manganese were also found to be considerably higher in the groundwater of wells located within the active treatment zone, as compared to wells located outside the active treatment zone (see histogram, Appendix D). Increasing levels of dissolved manganese are a good sign that reducing conditions have been established within the aquifer and provide an effective electron acceptor for the indigenous anaerobic microbes. Concentrations of dissolved manganese were also observed to decline with increasing distance from the injection wells, eventually declining to non-detect levels. This gradual attenuation of liberated manganese beyond the active treatment zone is taken as good evidence of the observed areal treatment extent.

#### 4.2.5 Sulfate

During the March 2010 monitoring event, sulfate concentrations generally ranged from 2.0 to 12.1 mg/L, with the higher concentrations observed within the active treatment zone. Similar concentrations and distribution were observed during the 2009 monitoring event. Each event had one monitoring well displaying sulfate at a concentration inconsistent with historic or surrounding concentrations. During 2009, MW-3D had a reported sulfate concentration of 19.9 mg/L. In 2010, MLW-1-3 had a reported sulfate concentration of 181 mg/L. Since these values have not been consistent over time, it is possible that they are simply anomalous artifacts and not representative of actual site groundwater quality.

Typically, observed reductions in sulfate concentrations (when compared to historic background levels) can suggest the presence of sulfate-reducing bacteria, several strains which are capable of promoting and sustaining ERD. Sulfate reducing conditions are particularly conducive to ERD of *cis*-DCE to vinyl chloride. Generally, sulfate data collected from the Medley Farm Site have not revealed any meaningful patterns or trends that would suggest to RMT that sulfate-reducing organisms are at work in the RD process. Since the site data does not reveal that sulfate levels represent a useful indicator parameter for this site, it is RMT's recommendation that this parameter be deleted from subsequent performance monitoring events.

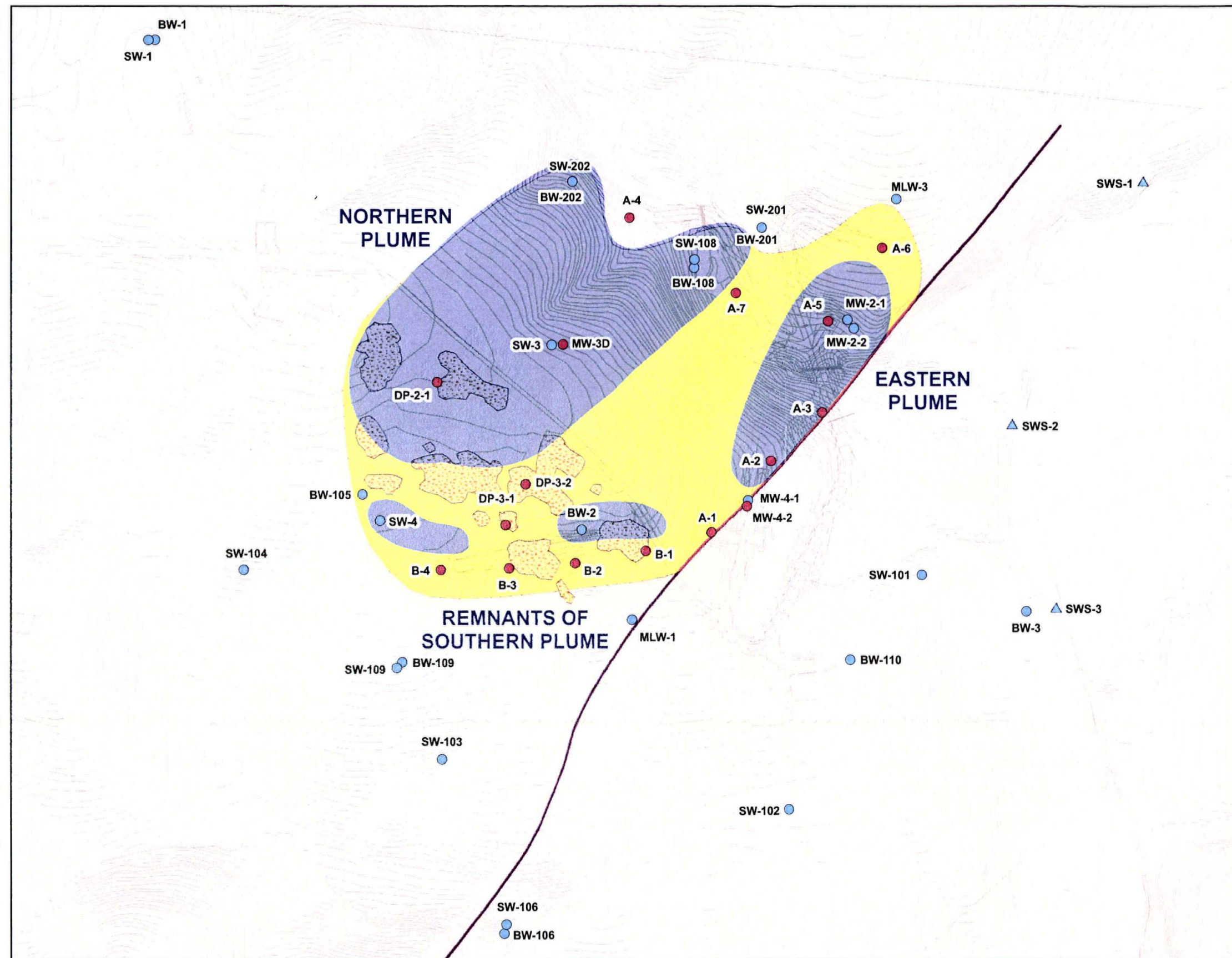
#### 4.2.6 pH

pH levels measured in wells located within the active treatment zones have remained somewhat higher than the pH measured in wells located outside the active treatment zones (see histogram, Appendix D). The pH of groundwater within the active treatment area currently ranges from 5.9 to 7.5, while wells outside the treatment area display pH values between 5.5 and 7.3. Both of the pH ranges fall within acceptable levels for ERD,








as microbial growth can be inhibited when pH drops below 5 or raises to levels above 9. Overall, these field data demonstrate that the water quality of the aquifer has been successfully adjusted to conditions that more fully accommodate and support ERD.

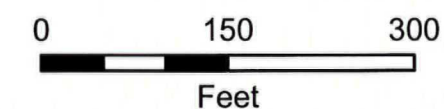
#### **4.2.7 Volatile Fatty Acids**

Sporadically, RMT has observed sporadic data from ongoing VFA analyses that support the presence of metabolic by-products occurring as a result of ERD. Overall, VFA data have yielded less than conclusive results and have not been especially useful in supporting our efforts to assess and evaluate ERD treatment performance. RMT recommends that VFAs be deleted as a indicator parameter from further performance monitoring sampling events.



#### LEGEND

-  TETRACHLOROETHENE AND TRICHLOROETHENE EXTENT MARCH 2010 (0.005 MG/L)
-  ESTIMATED EXTENT OF TETRACHLOROETHENE AND TRICHLOROETHENE PRIOR TO INITIAL LACTATE INJECTION IN OCTOBER 2004
-  FORMER DISPOSAL AREA OR LAGOON
-  MONITORING WELL LOCATION
-  INJECTION WELL LOCATION
-  SURFACE WATER SAMPLING LOCATION
-  FAULT



MEDLEY FARM NPL SITE  
GAFFNEY, SOUTH CAROLINA

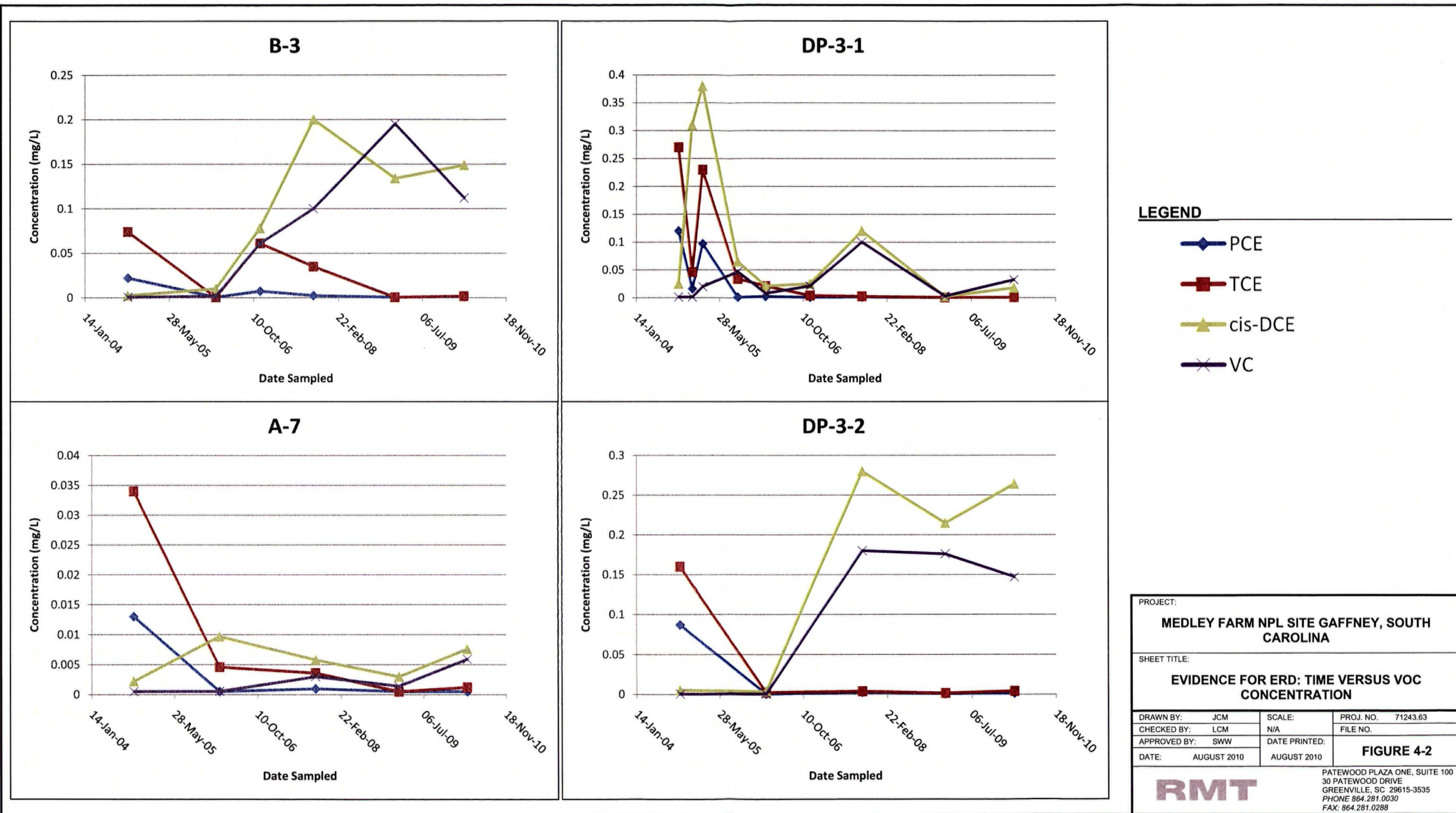
EVIDENCE FOR ERD:  
REDUCTION IN DISTRIBUTION OF  
TETRACHLOROETHENE AND TRICHLOROETHENE

DRAWN BY: TLH	SCALE AS NOTED	PROJECT NO.: 71243.63
CHECKED BY: LMC		DATE: AUGUST 2010
APPROVED BY: SWW		FIGURE NO.: 4-1

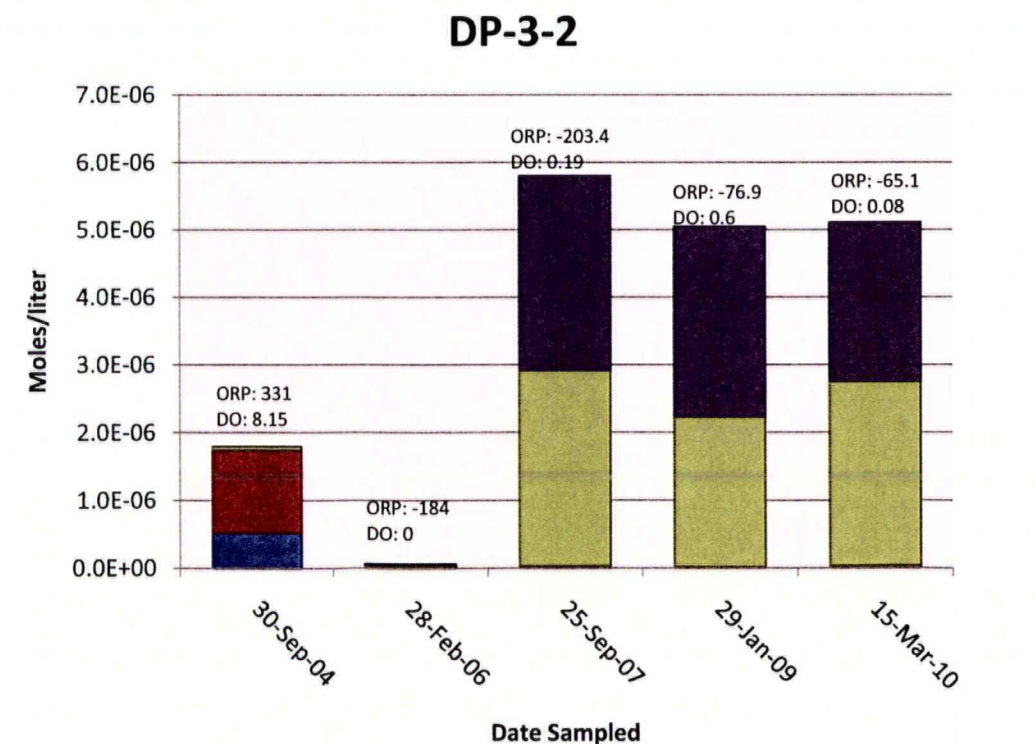
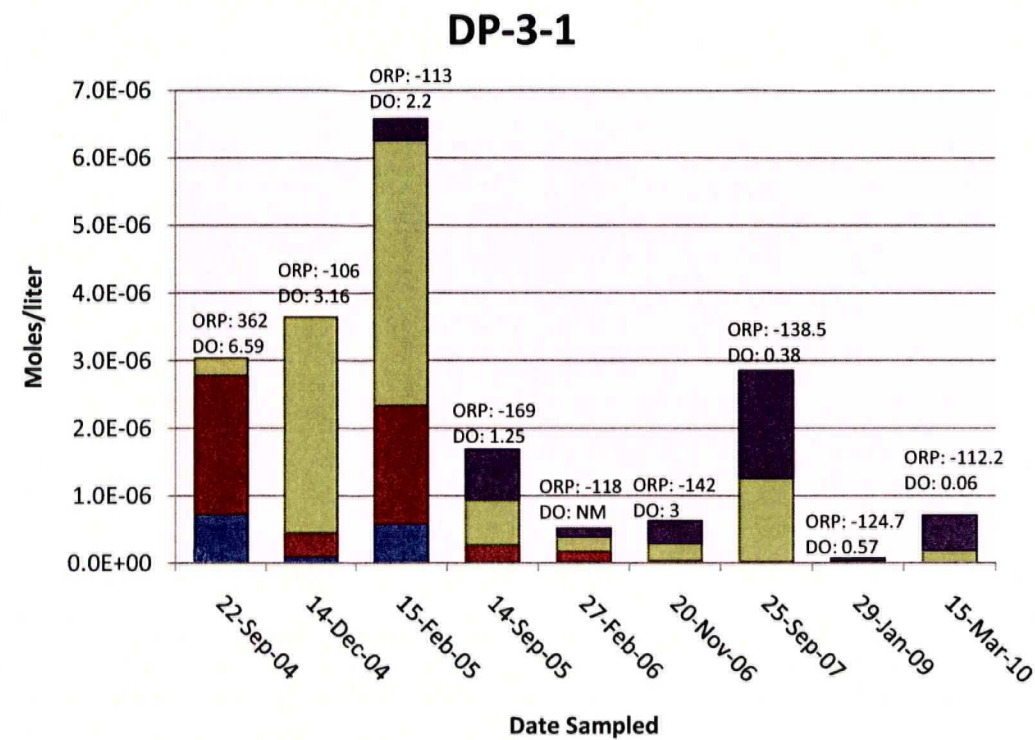
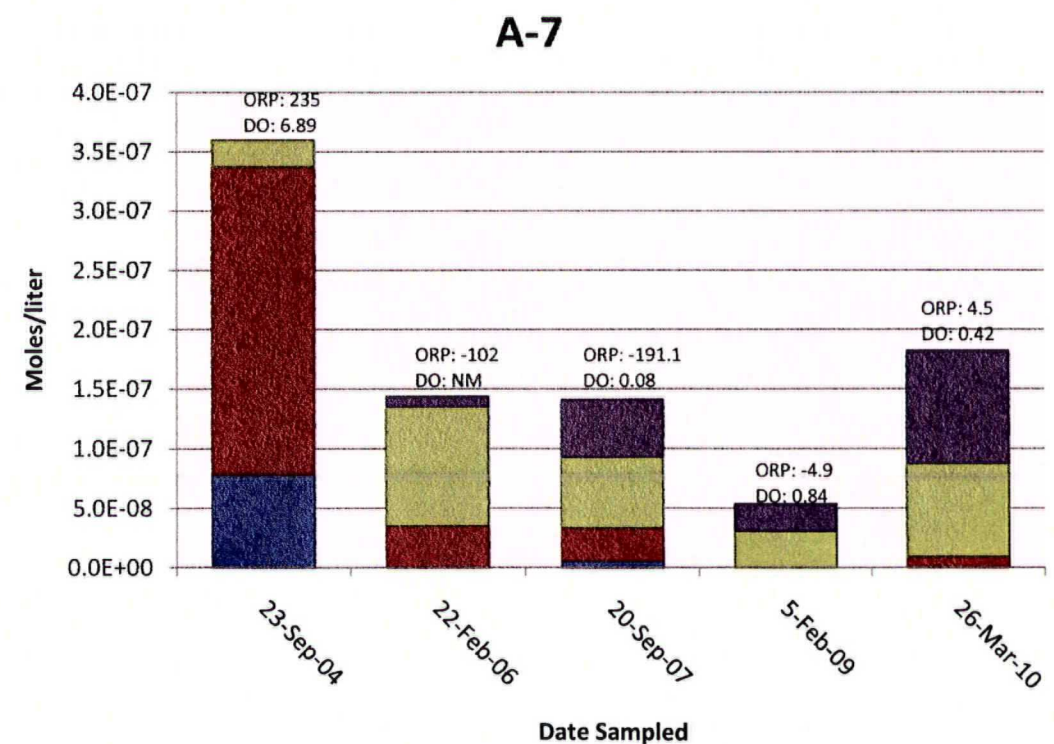
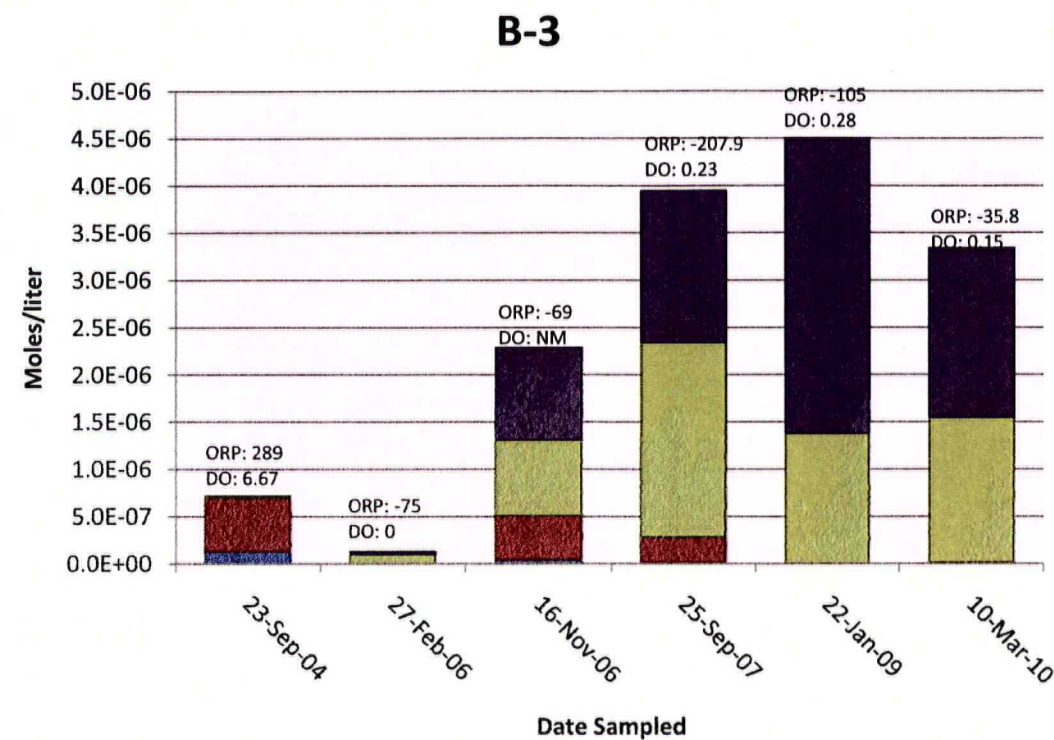
**RMT**

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#### LEGEND

- VC
- cis-DCE
- TCE
- PCE

#### NOTE

THE DECHLORINATION REACTION SEQUENCE WOULD BE EXPECTED TO PRODUCE ONE MOLE OF DECHLORINATION PRODUCTS (CIS-DCE, VINYL CHLORIDE, ETHENE, AND ETHANE) FOR EACH MOLE OF PARENT COMPOUNDS (PCE/TCE) THAT ARE PRESENT.

PROJECT:		
MEDLEY FARM NPL SITE GAFFNEY, SOUTH CAROLINA		
SHEET TITLE:		
EVIDENCE FOR ERD: VOC MOLAR CONCENTRATIONS		
DRAWN BY: JCM	SCALE: N/A	PROJ. NO. 71243.63
CHECKED BY: LMC		FILE NO.
APPROVED BY: SWW	DATE PRINTED:	FIGURE 4-3
DATE: AUGUST 2010	AUGUST 2010	
RMT		PATEWOOD PLAZA ONE, SUITE 100 30 PATEWOOD DRIVE GREENVILLE, SC 29615-3535 PHONE 864.281.0030 FAX: 864.281.0288



## Section 5

# Conclusions and Recommendations

---

Conclusions and associated recommendations resulting from evaluation of performance monitoring data collected over the past two years are summarized in the following text.

### 5.1 Conclusions

- Groundwater flow direction and gradients have remained consistent since shutdown of the groundwater P&T operations in 2004. Groundwater continues to flow to the southeast, where it ultimately discharges to the unnamed tributary to Jones Creek.
- VOCs have not been detected in surface water samples collected from the unnamed tributary to Jones Creek. This observation, combined with the current interpretation of VOC plume configuration, demonstrates that ERD has been effective in preventing the migration and transport of VOCs to the surface water and potential off-site receptors.
- Aquifer conditions conducive to ERD processes show good evidence of persistence within the active treatment area. Six months following each nutrient injection event, groundwater within the active treatment area has been sampled and generally reveals signs of negative ORP measurements, DO less than 1.0 mg/L, and dissolved ferrous iron and dissolved manganese greater than background. These are all good signs that water quality conditions indicative of ERD persist over time.
- Data collected from monitoring well MW-2-2 suggests that conditions conducive to ERD persist in the aquifer for up to two years after an injection event. In November 2006, groundwater samples from well MW-2-2 revealed evidence of vinyl chloride, reduction in DO concentration, and change from positive to negative ORP. These data suggest that it required approximately two years for ERD treatment introduced at injection well A-5 to have an impact on groundwater quality in well MW-2-2. These data also suggest that reducing conditions persisted in the aquifer at least two years after completion of the injection event.
- Ever decreasing concentrations of chlorinated parent compounds (PCE and TCE) and the appearance and subsequent decline in levels of daughter products (*cis*-DCE and vinyl chloride) represent primary lines of evidence that ERD is occurring and is effective across the site in remediating VOC-affected groundwater.
- Groundwater samples displaying strongly negative ORP and low DO levels also showed significant degradation of chlorinated parent compounds. Groundwater samples displaying more positive ORP and higher DO revealed lesser evidence of ERD-facilitated degradation of the chlorinated parent compounds. Developing and maintaining anaerobic,

reducing conditions within the aquifer will remain important to the success of site-wide ERD efforts.

- A considerable reduction in the extent of the PCE/TCE groundwater plume can be observed since ERD was initiated in October 2004. What was once considered to be a site-wide, single VOC plume has evolved into three smaller fragmented VOC plume remnants.
- While there is evidence that ERD is occurring in all three remaining VOC plumes, the southern plume has shown the most progress over the past 2 years, shrinking considerably since 2007. This area of the site has achieved groundwater quality conditions suitable for MNA. Ongoing performance monitoring can be used to determine if additional ERD treatment is required in the future.
- The eastern plume has also shown considerable remedial progress related to ERD. RMT believes that active remedial measures in this portion of the site are nearing completion.
- Ongoing performance monitoring has revealed that successful ERD treatment is widely predicated upon the ability of the injected nutrients to be distributed across the VOC-impacted groundwater zones. The northern VOC plume currently has a limited number of available injection points in the appropriate locations. The wells currently being utilized for nutrient injection in the northern VOC plume include DP-2-1, MW-3D, A-4, and A-7. These wells were initially installed as a part of the groundwater recovery/treatment and performance monitoring program. While aptly positioned for their original purpose, additional wells may help to better promote and maintain effective ERD treatment within the northern plume. RMT believes that ERD performance in the northern plume could be enhanced by construction of three additional injection wells and one new performance monitoring wells in this area. The proposed locations of these new wells are illustrated on Plate 1. The focus of these new wells would be to locate their well screens more strategically across the cross-section of the northern VOC plume to augment ERD treatment and enhance subsequent performance monitoring efforts.
- The residual northern VOC plume most likely originated beneath former SVE Area 1 and SVE Area 2. These areas are highlighted on the cross-section on Plate 1. According to RMT's 2007 conceptual site model, during the initial release, VOC compounds migrated from the former source areas (including SVE Area 1 and Area 2) and moved vertically through the unsaturated soils to groundwater. PCE and TCE, being heavier than groundwater, continued migrating vertically through the saturated saprolite and weathered bedrock zones. Upon encountering competent bedrock, these denser-than-water constituents likely migrated northeastward, along the bedrock surface, illustrated in the cross section on Plate 1, producing the northeastward trending plume currently observed. PCE/TCE dissolved in groundwater was also carried, but to a lesser extent, to the east-southeast, in the direction of groundwater flow. PSVBs conducted in SVE Area 1 and Area 2 in 1999 demonstrated that SVE treatment of the unsaturated soils in these former source areas was successful and

achieved the remedial objectives set forth in the ROD. Groundwater samples collected from temporary monitoring wells in this area still contained VOCs at concentrations above groundwater remedial goals.

## 5.2 Recommendations

- Historically, VFA and sulfate data have not been useful indicator parameters in helping RMT assess and evaluate ERD treatment performance. RMT recommends continued application of ORP, DO, dissolved ferrous iron, dissolved manganese, and pH as useful geochemical indicators for the evaluation of ERD. RMT recommends that VFAs and sulfate be removed from further use in the site performance monitoring program.
- Install three additional injection wells within the northern VOC plume to facilitate and accelerate ERD treatment within this portion of the site. Proposed locations for the new wells are illustrated on Plate 1.
- Install one additional performance monitoring well to help better gauge the effectiveness of the nutrient injections downgradient of these new injection wells. The proposed location of this well is included on Plate 1. This well would be designed such that it could later be used as an injection well, if site conditions deemed such a move appropriate.
- Collect and analyze background groundwater samples from the newly installed wells prior to the next nutrient injection event, to provide some manner of baseline groundwater quality against which future remedial progress can be measured.
- Conduct another nutrient injection event, utilizing the newly installed injection wells as well as select existing injection wells during the third quarter 2010. The wells proposed for this injection event are provided on Table 5-1.
- Conduct a focused groundwater sampling event during the first quarter of 2011, approximately 6 months after the injection event. The wells to be sampled will be focused within and immediately adjacent to the active treatment area. The wells proposed for this sampling event are provided on Table 5-1.
- Provide USEPA and SC DHEC with an annual report in 2011 documenting the response of the site aquifer to these most recent events and establish a basis for future site remedial response.

Table 5-1  
Targeted Injection and Performance Monitoring Plan

3Q2010 BASELINE SAMPLING	3Q2010 INJECTION EVENT	1Q2011 PERFORMANCE MONITORING
C-1 <sup>(1)</sup>	C-1 <sup>(1)</sup>	C-1 <sup>(1)</sup>
C-2 <sup>(1)</sup>	C-2 <sup>(1)</sup>	C-2 <sup>(1)</sup>
C-3 <sup>(1)</sup>	C-3 <sup>(1)</sup>	C-3 <sup>(1)</sup>
BW-301 <sup>(1)</sup>	BW-301 <sup>(1)</sup>	BW-301 <sup>(1)</sup>
		A-1
	A-2	A-2
	A-3	A-3
	A-4	A-4
	A-5	A-5
		A-6
	A-7	A-7
		B-1
		B-2
		B-3
		B-4
		BW-2
		BW-3
		BW-108
		BW-201
		BW-202
	DP-2-1	DP-2-1
		DP-3-1
		DP-3-2
		MW-2-1
		MW-2-2
	MW-3D	MW-3D
		MW-4-1
		MW-4-2
		SW-3
		SW-4

**Table 5-1**  
**Targeted Injection and Performance Monitoring Plan**

<b>3Q2010 BASELINE SAMPLING</b>	<b>3Q2010 INJECTION EVENT</b>	<b>1Q2011 PERFORMANCE MONITORING</b>
		SW-108
		SW-201
		SW-202
		SWS-1 <sup>(2)</sup>
		SWS-2 <sup>(2)</sup>
		SWS-3 <sup>(2)</sup>

<sup>(1)</sup> Proposed new injection or monitoring well.

<sup>(2)</sup> Surface water sampling location.

## Section 6

# References

---

- Diefendorf, Drew and Mark A. Miesfeldt, RMT, Inc. February 2005. Technical Memorandum for Medley Farm NPL Site, Preliminary Performance Evaluation, Initial Enhanced Dechlorination Injection Results to Ralph Howard, USEPA, Region 4. February 18, 2005.
- RMT, Inc. June 1992. *Field Sampling and Analysis Plan/Quality Assurance Project Plan*. Medley Farm Site, Gaffney, South Carolina.
- RMT, Inc. February 2006. *2005 Remedial Action Annual Report*. Medley Farm NPL Site, Gaffney, South Carolina.
- RMT, Inc. March 2007. *2006 Remedial Action Annual Report*. Medley Farm NPL Site, Gaffney, South Carolina.
- RMT, Inc. February 2008. *2007 Remedial Action Annual Report*. Medley Farm NPL Site, Gaffney, South Carolina.
- RMT, Inc. April 2010. *Quality Assurance Project Plan*. Medley Farm Site, Gaffney, South Carolina.

# Appendix A

## Analytical Laboratory Reports

---



March 29, 2010

Mark Bailey  
RMT Greenville  
30 Patewood Drive  
Suite 100, Patewood Plaza One  
Greenville, SC 296153535

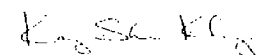
RE: Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Dear Mark Bailey:

Enclosed are the analytical results for sample(s) received by the laboratory on March 13, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kang Khang

kang.khang@pacelabs.com  
Project Manager

Enclosures

## REPORT OF LABORATORY ANALYSIS

Page 1 of 33

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TEMP-OK; CoC-SIGNED; HT-OK; NARR-OK

SURR-RECS OK

Pace Analytical Services, Inc.  
1241 Bellevue Street - Suite 9  
Green Bay, WI 54302  
(920)469-2436

MBLKS - CLEAN EXCEPT FOR 0.47 J<sub>ug</sub>/L OF  
METHYLENE CHLORIDE.

March 29, 2010.

Mark Bailey  
RMT Greenville  
30 Patewood Drive  
Suite 100, Patewood Plaza One  
Greenville, SC 296153535

TBLK-10101 - CLEAN

LCS/LCSD - RECS + RPDs OK

MS/MSD - Mn, DISS - TWO BATCH QC MS/MSD PAIRS.  
- RECS + RPDs OK.

RE: Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

- SO<sub>4</sub> - TWO MS/MSD PAIRS - B-1 AND MW-4-1 USED.  
- RECS + RPDs OK

Dear Mark Bailey:

- VOCs - MLW-1-4 USED FOR MS/MSD. RECS + RPDs OK.

Enclosed are the analytical results for sample(s) received by the laboratory on March 13, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

FIELD DUP - DU-10101 IS A FIELD DUPLICATE OF MW-4-2. RPDs < 11%.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kang Khang

kang.khang@pacelabs.com  
Project Manager

 4/1/10

Enclosures

# REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

---

### Green Bay Certification IDs

California Certification #: 09268CA  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
New York Certification #: 11887

New York Certification #: 11888  
North Carolina Certification #: 503  
North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444  
1241 Bellevue Street Green Bay, WI 54302

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4029419001	B-1	Water	03/09/10 13:50	03/13/10 09:40
4029419002	MLW-1-1	Water	03/09/10 10:55	03/13/10 09:40
4029419003	MLW-1-2	Water	03/09/10 11:35	03/13/10 09:40
4029419004	MLW-1-3	Water	03/09/10 13:10	03/13/10 09:40
4029419005	MLW-1-4	Water	03/09/10 13:30	03/13/10 09:40
4029419006	MW-2-2	Water	03/09/10 15:00	03/13/10 09:40
4029419007	MLW-1-4	Water	03/10/10 14:25	03/13/10 09:40
4029419008	MLW-3-2	Water	03/10/10 15:05	03/13/10 09:40
4029419009	B-2	Water	03/10/10 13:40	03/13/10 09:40
4029419010	B-3	Water	03/10/10 16:00	03/13/10 09:40
4029419011	TBLK-10101	Water	03/10/10 00:00	03/13/10 09:40
4029419012	B-4	Water	03/11/10 15:40	03/13/10 09:40
4029419013	MW-2-1	Water	03/12/10 11:10	03/13/10 09:40
4029419014	MW-4-1	Water	03/12/10 12:10	03/13/10 09:40
4029419015	MLW-3-3	Water	03/12/10 10:55	03/13/10 09:40
4029419016	MLW-3-4	Water	03/12/10 11:30	03/13/10 09:40
4029419017	MW-4-2	Water	03/12/10 13:10	03/13/10 09:40
4029419018	DU-10101	Water	03/12/10 00:00	03/13/10 09:40

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4029419001	B-1	EPA 6010	DLB	1	PASI-G
		EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029419002	MLW-1-1	EPA 6010	DLB	1	PASI-G
		EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029419003	MLW-1-2	EPA 6010	DLB	1	PASI-G
		EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029419004	MLW-1-3	EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029419005	MLW-1-4	EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029419006	MW-2-2	EPA 6010	DLB	1	PASI-G
		EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029419007	MLW-1-4	EPA 6010	DLB	1	PASI-G
4029419008	MLW-3-2	EPA 6010	DLB	1	PASI-G
		EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029419009	B-2	EPA 6010	DLB	1	PASI-G
		EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029419010	B-3	EPA 6010	DLB	1	PASI-G
		EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029419011	TBLK-10101	EPA 8260	HNW	20	PASI-G
4029419012	B-4	EPA 6010	DLB	1	PASI-G
		EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029419013	MW-2-1	EPA 6010	DLB	1	PASI-G
		EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029419014	MW-4-1	EPA 6010	DLB	1	PASI-G
		EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029419015	MLW-3-3	EPA 6010	DLB	1	PASI-G

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4029419016	MLW-3-4	EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
		EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029419017	MW-4-2	EPA 6010	DLB	1	PASI-G
		EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
		EPA 6010	DLB	1	PASI-G
4029419018	DU-10101	EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
		EPA 8260	HNW	20	PASI-G
		EPA 300.0	DDY	1	PASI-G

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

---

**Method:** EPA 6010  
**Description:** 6010 MET ICP, Dissolved  
**Client:** RMT - GREENVILLE  
**Date:** March 29, 2010

### General Information:

14 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

- P4: Sample field preservation does not meet EPA or method recommendations for this analysis.  
• MW-2-2 (Lab ID: 4029419006)

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

## REPORT OF LABORATORY ANALYSIS

Page 6 of 33

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## PROJECT NARRATIVE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

---

**Method:** EPA 8260  
**Description:** 8260 MSV  
**Client:** RMT - GREENVILLE  
**Date:** March 29, 2010

### General Information:

17 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Surrogates:

1 surrogates were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

---

**Method:** EPA 300.0  
**Description:** 300.0 IC Anions 28 Days  
**Client:** RMT - GREENVILLE  
**Date:** March 29, 2010

**General Information:**

16 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

1 laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: B-1 Lab ID: 4029419001 Collected: 03/09/10 13:50 Received: 03/13/10 09:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	4200	ug/L	5.0	0.12	1		03/16/10 17:54	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/17/10 18:44	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 18:44	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/17/10 18:44	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 18:44	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/17/10 18:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 18:44	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/17/10 18:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/17/10 18:44	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/17/10 18:44	75-35-4	
cis-1,2-Dichloroethene	6.6	ug/L	1.0	0.83	1		03/17/10 18:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 18:44	156-60-5	
Methylene Chloride	0.59J	ug/L	1.0	0.43	1		03/17/10 18:44	75-09-2	Z2,Z3
Tetrachloroethene	1.1	ug/L	1.0	0.45	1		03/17/10 18:44	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 18:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/17/10 18:44	79-00-5	
1,1,2-Trichloroethene	2.8	ug/L	1.0	0.48	1		03/17/10 18:44	79-01-6	
Vinyl chloride	2.4	ug/L	1.0	0.18	1		03/17/10 18:44	75-01-4	
4-Bromofluorobenzene (S)	97	%-	70-130		1		03/17/10 18:44	460-00-4	
Dibromofluoromethane (S)	105	%-	70-130		1		03/17/10 18:44	1868-53-7	
Toluene-d8 (S)	105	%-	70-130		1		03/17/10 18:44	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	4.1	mg/L	4.0	2.0	1		03/22/10 23:44	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: MLW-1-1		Lab ID: 4029419002	Collected: 03/09/10 10:55	Received: 03/13/10 09:40	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	52.8 ug/L		5.0	0.12	1		03/16/10 17:58	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	10.9J ug/L		20.0	5.0	1		03/17/10 21:28	67-64-1	
Benzene	ND ug/L		1.0	0.41	1		03/17/10 21:28	71-43-2	
2-Butanone (MEK)	12.9J ug/L		20.0	4.3	1		03/17/10 21:28	78-93-3	
Chloroethane	ND ug/L		1.0	0.97	1		03/17/10 21:28	75-00-3	
Chloroform	2.1J ug/L		5.0	1.3	1		03/17/10 21:28	67-66-3	
Chloromethane	ND ug/L		1.0	0.24	1		03/17/10 21:28	74-87-3	
1,1-Dichloroethane	0.88J ug/L		1.0	0.75	1		03/17/10 21:28	75-34-3	
1,2-Dichloroethane	ND ug/L		1.0	0.36	1		03/17/10 21:28	107-06-2	
1,1-Dichloroethene	ND ug/L		1.0	0.57	1		03/17/10 21:28	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		1.0	0.83	1		03/17/10 21:28	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		1.0	0.89	1		03/17/10 21:28	156-60-5	
Methylene Chloride	1.7 ug/L		1.0	0.43	1		03/17/10 21:28	75-09-2	Z2,Z3
Tetrachloroethene	ND ug/L		1.0	0.45	1		03/17/10 21:28	127-18-4	
1,1-Trichloroethane	ND ug/L		1.0	0.90	1		03/17/10 21:28	71-55-6	
1,2-Trichloroethane	ND ug/L		1.0	0.42	1		03/17/10 21:28	79-00-5	
1,1,2-Trichloroethene	ND ug/L		1.0	0.48	1		03/17/10 21:28	79-01-6	
Vinyl chloride	ND ug/L		1.0	0.18	1		03/17/10 21:28	75-01-4	
4-Bromofluorobenzene (S)	97 %-		70-130		1		03/17/10 21:28	460-00-4	
Dibromofluoromethane (S)	104 %-		70-130		1		03/17/10 21:28	1868-53-7	
Toluene-d8 (S)	105 %-		70-130		1		03/17/10 21:28	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	ND mg/L		4.0	2.0	1		03/23/10 00:45	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: MLW-1-2 Lab ID: 4029419003 Collected: 03/09/10 11:35 Received: 03/13/10 09:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	95.5	ug/L	5.0	0.12	1		03/16/10 18:02	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	11.3J	ug/L	20.0	5.0	1		03/17/10 21:52	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 21:52	71-43-2	
2-Butanone (MEK)	7.9J	ug/L	20.0	4.3	1		03/17/10 21:52	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 21:52	75-00-3	
Chloroform	2.0J	ug/L	5.0	1.3	1		03/17/10 21:52	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 21:52	74-87-3	
1,1-Dichloroethane	0.87J	ug/L	1.0	0.75	1		03/17/10 21:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/17/10 21:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/17/10 21:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/17/10 21:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 21:52	156-60-5	
Methylene Chloride	1.7	ug/L	1.0	0.43	1		03/17/10 21:52	75-09-2	Z2.Z3
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/17/10 21:52	127-18-4	
1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 21:52	71-55-6	
2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/17/10 21:52	79-00-5	
Chloroethene	ND	ug/L	1.0	0.48	1		03/17/10 21:52	79-01-6	
Vinyl chloride	0.19J	ug/L	1.0	0.18	1		03/17/10 21:52	75-01-4	
4-Bromofluorobenzene (S)	97	%-	70-130		1		03/17/10 21:52	460-00-4	
Dibromofluoromethane (S)	106	%-	70-130		1		03/17/10 21:52	1868-53-7	
Toluene-d8 (S)	105	%-	70-130		1		03/17/10 21:52	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	ND	mg/L	4.0	2.0	1		03/23/10 00:58	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: MLW-1-3 Lab ID: 4029419004 Collected: 03/09/10 13:10 Received: 03/13/10 09:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	68.7	ug/L	20.0	5.0	1		03/17/10 22:15	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 22:15	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/17/10 22:15	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 22:15	75-00-3	
Chloroform	2.1J	ug/L	5.0	1.3	1		03/17/10 22:15	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 22:15	74-87-3	
1,1-Dichloroethane	1.1	ug/L	1.0	0.75	1		03/17/10 22:15	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/17/10 22:15	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/17/10 22:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/17/10 22:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 22:15	156-60-5	
Methylene Chloride	1.5	ug/L	1.0	0.43	1		03/17/10 22:15	75-09-2	Z2,Z3
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/17/10 22:15	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 22:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/17/10 22:15	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.48	1		03/17/10 22:15	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/17/10 22:15	75-01-4	
Bromofluorobenzene (S)	97	%-	70-130		1		03/17/10 22:15	460-00-4	
Bromofluoromethane (S)	105	%-	70-130		1		03/17/10 22:15	1868-53-7	
Toluene-d8 (S)	105	%-	70-130		1		03/17/10 22:15	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	181	mg/L	80.0	40.0	20		03/23/10 01:10	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: MLW-1-4 Lab ID: 4029419005 Collected: 03/09/10 13:30 Received: 03/13/10 09:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/17/10 17:57	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 17:57	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/17/10 17:57	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 17:57	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/17/10 17:57	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 17:57	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/17/10 17:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/17/10 17:57	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/17/10 17:57	75-35-4	
cis-1,2-Dichloroethene	1.3	ug/L	1.0	0.83	1		03/17/10 17:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 17:57	156-60-5	
Methylene Chloride	0.53J	ug/L	1.0	0.43	1		03/17/10 17:57	75-09-2	Z2.Z3
Tetrachloroethene	1.0	ug/L	1.0	0.45	1		03/17/10 17:57	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 17:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/17/10 17:57	79-00-5	
Trichloroethene	2.1	ug/L	1.0	0.48	1		03/17/10 17:57	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/17/10 17:57	75-01-4	
Bromofluorobenzene (S)	96	%-	70-130		1		03/17/10 17:57	460-00-4	
Bromofluoromethane (S)	102	%-	70-130		1		03/17/10 17:57	1868-53-7	
Toluene-d8 (S)	104	%-	70-130		1		03/17/10 17:57	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	9.5	mg/L	4.0	2.0	1		03/23/10 01:22	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: MW-2-2		Lab ID: 4029419006	Collected: 03/09/10 15:00	Received: 03/13/10 09:40	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	1360	ug/L	5.0	0.12	1		03/16/10 18:06	7439-96-5	P4
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/17/10 23:02	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 23:02	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/17/10 23:02	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 23:02	75-00-3	
Chloroform	4.9J	ug/L	5.0	1.3	1		03/17/10 23:02	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 23:02	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/17/10 23:02	75-34-3	
1,2-Dichloroethane	1.2	ug/L	1.0	0.36	1		03/17/10 23:02	107-06-2	
1,1-Dichloroethene	2.9	ug/L	1.0	0.57	1		03/17/10 23:02	75-35-4	
cis-1,2-Dichloroethene	17.4	ug/L	1.0	0.83	1		03/17/10 23:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 23:02	156-60-5	
Methylene Chloride	0.44J	ug/L	1.0	0.43	1		03/17/10 23:02	75-09-2	Z2,Z3
Tetrachloroethene	23.7	ug/L	1.0	0.45	1		03/17/10 23:02	127-18-4	
1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 23:02	71-55-6	
1,2-Trichloroethane	1.6	ug/L	1.0	0.42	1		03/17/10 23:02	79-00-5	
1,1,2-Trichloroethene	56.9	ug/L	1.0	0.48	1		03/17/10 23:02	79-01-6	
Vinyl chloride	3.8	ug/L	1.0	0.18	1		03/17/10 23:02	75-01-4	
4-Bromofluorobenzene (S)	98	%-	70-130		1		03/17/10 23:02	460-00-4	
Dibromofluoromethane (S)	106	%-	70-130		1		03/17/10 23:02	1868-53-7	
Toluene-d8 (S)	105	%-	70-130		1		03/17/10 23:02	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	5.4	mg/L	4.0	2.0	1		03/23/10 01:34	14808-79-8	



## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: MLW-1-4 Lab ID: 4029419007 Collected: 03/10/10 14:25 Received: 03/13/10 09:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved Analytical Method: EPA 6010									
Manganese, Dissolved	2.1J	ug/L	5.0	0.12	1		03/16/10 18:10	7439-96-5	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: MLW-3-2 Lab ID: 4029419008 Collected: 03/10/10 15:05 Received: 03/13/10 09:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	14.1	ug/L	5.0	0.12	1		03/16/10 18:14	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	7.0J	ug/L	20.0	5.0	1		03/17/10 22:39	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 22:39	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/17/10 22:39	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 22:39	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/17/10 22:39	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 22:39	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/17/10 22:39	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/17/10 22:39	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/17/10 22:39	75-35-4	
cis-1,2-Dichloroethene	23.5	ug/L	1.0	0.83	1		03/17/10 22:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 22:39	156-60-5	
Methylene Chloride	0.50J	ug/L	1.0	0.43	1		03/17/10 22:39	75-09-2	Z2,Z3
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/17/10 22:39	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 22:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/17/10 22:39	79-00-5	
1,1,2-Trichloroethene	ND	ug/L	1.0	0.48	1		03/17/10 22:39	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/17/10 22:39	75-01-4	
4-Bromofluorobenzene (S)	96	%-	70-130		1		03/17/10 22:39	460-00-4	
Dibromofluoromethane (S)	104	%-	70-130		1		03/17/10 22:39	1868-53-7	
Toluene-d8 (S)	105	%-	70-130		1		03/17/10 22:39	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	ND	mg/L	4.0	2.0	1		03/23/10 01:46	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: B-2		Lab ID: 4029419009	Collected: 03/10/10 13:40	Received: 03/13/10 09:40	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved		Analytical Method: EPA 6010							
Manganese, Dissolved	3300	ug/L	5.0	0.12	1		03/16/10 18:18	7439-96-5	
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/17/10 23:26	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 23:26	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/17/10 23:26	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 23:26	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/17/10 23:26	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 23:26	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/17/10 23:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/17/10 23:26	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/17/10 23:26	75-35-4	
cis-1,2-Dichloroethene	4.3	ug/L	1.0	0.83	1		03/17/10 23:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 23:26	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/17/10 23:26	75-09-2	
Tetrachloroethene	0.59J	ug/L	1.0	0.45	1		03/17/10 23:26	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 23:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/17/10 23:26	79-00-5	
1,1,2,2-Tetrachloroethane	1.0	ug/L	1.0	0.48	1		03/17/10 23:26	79-01-6	
Vinyl chloride	0.77J	ug/L	1.0	0.18	1		03/17/10 23:26	75-01-4	
4-Bromofluorobenzene (S)	97	%-	70-130		1		03/17/10 23:26	460-00-4	
Dibromofluoromethane (S)	104	%-	70-130		1		03/17/10 23:26	1868-53-7	
Toluene-d8 (S)	105	%-	70-130		1		03/17/10 23:26	2037-26-5	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	6.6	mg/L	4.0	2.0	1		03/23/10 01:58	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: B-3 Lab ID: 4029419010 Collected: 03/10/10 16:00 Received: 03/13/10 09:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	3900	ug/L	5.0	0.12	1		03/16/10 18:22	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	50.0	12.5	2.5		03/18/10 00:13	67-64-1	
Benzene	ND	ug/L	2.5	1.0	2.5		03/18/10 00:13	71-43-2	
2-Butanone (MEK)	ND	ug/L	50.0	10.8	2.5		03/18/10 00:13	78-93-3	
Chloroethane	ND	ug/L	2.5	2.4	2.5		03/18/10 00:13	75-00-3	
Chloroform	ND	ug/L	12.5	3.2	2.5		03/18/10 00:13	67-66-3	
Chloromethane	ND	ug/L	2.5	0.60	2.5		03/18/10 00:13	74-87-3	
1,1-Dichloroethane	3.2	ug/L	2.5	1.9	2.5		03/18/10 00:13	75-34-3	
1,2-Dichloroethane	101	ug/L	2.5	0.90	2.5		03/18/10 00:13	107-06-2	
1,1-Dichloroethene	2.8	ug/L	2.5	1.4	2.5		03/18/10 00:13	75-35-4	
cis-1,2-Dichloroethene	149	ug/L	2.5	2.1	2.5		03/18/10 00:13	156-59-2	
trans-1,2-Dichloroethene	4.3	ug/L	2.5	2.2	2.5		03/18/10 00:13	156-60-5	
Methylene Chloride	1.6J	ug/L	2.5	1.1	2.5		03/18/10 00:13	75-09-2	Z2,Z3
Tetrachloroethene	ND	ug/L	2.5	1.1	2.5		03/18/10 00:13	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	2.5	2.2	2.5		03/18/10 00:13	71-55-6	
1,1,2-Trichloroethane	8.2	ug/L	2.5	1.0	2.5		03/18/10 00:13	79-00-5	
1,1,2,2-Tetrachloroethane	1.7J	ug/L	2.5	1.2	2.5		03/18/10 00:13	79-01-6	
Vinyl chloride	112	ug/L	2.5	0.45	2.5		03/18/10 00:13	75-01-4	
4-Bromofluorobenzene (S)	97	%-	70-130		2.5		03/18/10 00:13	460-00-4	
Dibromofluoromethane (S)	105	%-	70-130		2.5		03/18/10 00:13	1868-53-7	
Toluene-d8 (S)	104	%-	70-130		2.5		03/18/10 00:13	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	4.2	mg/L	4.0	2.0	1		03/23/10 02:11	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: TBLK-10101 Lab ID: 4029419011 Collected: 03/10/10 00:00 Received: 03/13/10 09:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/17/10 18:20	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 18:20	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/17/10 18:20	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 18:20	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/17/10 18:20	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 18:20	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/17/10 18:20	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/17/10 18:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/17/10 18:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/17/10 18:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 18:20	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/17/10 18:20	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/17/10 18:20	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 18:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/17/10 18:20	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.48	1		03/17/10 18:20	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/17/10 18:20	75-01-4	
Bromofluorobenzene (S)	97	%-	70-130		1		03/17/10 18:20	460-00-4	
Bromofluoromethane (S)	105	%-	70-130		1		03/17/10 18:20	1868-53-7	
Toluene-d8 (S)	104	%-	70-130		1		03/17/10 18:20	2037-26-5	



## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: B-4 Lab ID: 4029419012 Collected: 03/11/10 15:40 Received: 03/13/10 09:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	2220	ug/L	5.0	0.12	1		03/16/10 18:26	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/17/10 19:07	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 19:07	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/17/10 19:07	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 19:07	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/17/10 19:07	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 19:07	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/17/10 19:07	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/17/10 19:07	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/17/10 19:07	75-35-4	
cis-1,2-Dichloroethene	1.2	ug/L	1.0	0.83	1		03/17/10 19:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 19:07	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/17/10 19:07	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/17/10 19:07	127-18-4	
1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 19:07	71-55-6	
1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/17/10 19:07	79-00-5	
1,1,2-Trichloroethene	0.80J	ug/L	1.0	0.48	1		03/17/10 19:07	79-01-6	
Vinyl chloride	0.81J	ug/L	1.0	0.18	1		03/17/10 19:07	75-01-4	
4-Bromofluorobenzene (S)	97	%-	70-130		1		03/17/10 19:07	460-00-4	
Dibromofluoromethane (S)	103	%-	70-130		1		03/17/10 19:07	1868-53-7	
Toluene-d8 (S)	105	%-	70-130		1		03/17/10 19:07	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	3.1J	mg/L	4.0	2.0	1		03/23/10 02:23	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: MW-2-1		Lab ID: 4029419013	Collected: 03/12/10 11:10	Received: 03/13/10 09:40	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	55.8	ug/L	5.0	0.12	1		03/16/10 18:30	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/17/10 19:31	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 19:31	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/17/10 19:31	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 19:31	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/17/10 19:31	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 19:31	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/17/10 19:31	75-34-3	
1,2-Dichloroethane	0.43J	ug/L	1.0	0.36	1		03/17/10 19:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/17/10 19:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/17/10 19:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 19:31	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/17/10 19:31	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/17/10 19:31	127-18-4	
1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 19:31	71-55-6	
1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/17/10 19:31	79-00-5	
1,1,1-Trichloroethene	ND	ug/L	1.0	0.48	1		03/17/10 19:31	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/17/10 19:31	75-01-4	
4-Bromofluorobenzene (S)	98	%-	70-130		1		03/17/10 19:31	460-00-4	
Dibromofluoromethane (S)	105	%-	70-130		1		03/17/10 19:31	1868-53-7	
Toluene-d8 (S)	104	%-	70-130		1		03/17/10 19:31	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	12.1	mg/L	4.0	2.0	1		03/23/10 02:35	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: MW-4-1 Lab ID: 4029419014 Collected: 03/12/10 12:10 Received: 03/13/10 09:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	496	ug/L	5.0	0.12	1		03/17/10 13:46	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/17/10 19:54	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 19:54	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/17/10 19:54	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 19:54	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/17/10 19:54	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 19:54	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/17/10 19:54	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/17/10 19:54	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/17/10 19:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/17/10 19:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 19:54	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/17/10 19:54	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/17/10 19:54	127-18-4	
1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 19:54	71-55-6	
1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/17/10 19:54	79-00-5	
1,1,2-Trichloroethene	ND	ug/L	1.0	0.48	1		03/17/10 19:54	79-01-6	
Vinyl chloride	0.40J	ug/L	1.0	0.18	1		03/17/10 19:54	75-01-4	
4-Bromofluorobenzene (S)	98	%-	70-130		1		03/17/10 19:54	460-00-4	
Dibromofluoromethane (S)	104	%-	70-130		1		03/17/10 19:54	1868-53-7	
Toluene-d8 (S)	105	%-	70-130		1		03/17/10 19:54	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	3.6J	mg/L	4.0	2.0	1		03/23/10 03:12	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: MLW-3-3 Lab ID: 4029419015 Collected: 03/12/10 10:55 Received: 03/13/10 09:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	4.4J	ug/L	5.0	0.12	1		03/16/10 18:46	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/17/10 20:18	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 20:18	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/17/10 20:18	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 20:18	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/17/10 20:18	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 20:18	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/17/10 20:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/17/10 20:18	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/17/10 20:18	75-35-4	
cis-1,2-Dichloroethene	24.3	ug/L	1.0	0.83	1		03/17/10 20:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 20:18	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/17/10 20:18	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/17/10 20:18	127-18-4	
1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 20:18	71-55-6	
1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/17/10 20:18	79-00-5	
1,1,2-Trichloroethene	ND	ug/L	1.0	0.48	1		03/17/10 20:18	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/17/10 20:18	75-01-4	
4-Bromofluorobenzene (S)	98	%-	70-130		1		03/17/10 20:18	460-00-4	
Dibromofluoromethane (S)	104	%-	70-130		1		03/17/10 20:18	1868-53-7	
Toluene-d8 (S)	105	%-	70-130		1		03/17/10 20:18	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	2.3J	mg/L	4.0	2.0	1		03/23/10 03:48	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: MLW-3-4 Lab ID: 4029419016 Collected: 03/12/10 11:30 Received: 03/13/10 09:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/17/10 20:41	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 20:41	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/17/10 20:41	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 20:41	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/17/10 20:41	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 20:41	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/17/10 20:41	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/17/10 20:41	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/17/10 20:41	75-35-4	
cis-1,2-Dichloroethene	13.2	ug/L	1.0	0.83	1		03/17/10 20:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 20:41	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/17/10 20:41	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/17/10 20:41	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 20:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/17/10 20:41	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.48	1		03/17/10 20:41	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/17/10 20:41	75-01-4	
Bromofluorobenzene (S)	97	%-	70-130		1		03/17/10 20:41	460-00-4	
Bromofluoromethane (S)	105	%-	70-130		1		03/17/10 20:41	1868-53-7	
Toluene-d8 (S)	105	%-	70-130		1		03/17/10 20:41	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	2.0J	mg/L	4.0	2.0	1		03/23/10 04:00	14808-79-8	



## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace Project No.: 4029419

Sample: MW-4-2 Lab ID: 4029419017 Collected: 03/12/10 13:10 Received: 03/13/10 09:40 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	4070	ug/L	5.0	0.12	1		03/16/10 18:50	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/17/10 21:05	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 21:05	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/17/10 21:05	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 21:05	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/17/10 21:05	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 21:05	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/17/10 21:05	75-34-3	
1,2-Dichloroethane	1.1	ug/L	1.0	0.36	1		03/17/10 21:05	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/17/10 21:05	75-35-4	
cis-1,2-Dichloroethene	3.9	ug/L	1.0	0.83	1		03/17/10 21:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 21:05	156-60-5	
Methylene Chloride	0.45J	ug/L	1.0	0.43	1		03/17/10 21:05	75-09-2	22.23
Tetrachloroethene	1.8	ug/L	1.0	0.45	1		03/17/10 21:05	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 21:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/17/10 21:05	79-00-5	
1,1,2-Trichloroethene	4.4	ug/L	1.0	0.48	1		03/17/10 21:05	79-01-6	
Vinyl chloride	2.6	ug/L	1.0	0.18	1		03/17/10 21:05	75-01-4	
4-Bromofluorobenzene (S)	97	%-	70-130		1		03/17/10 21:05	460-00-4	
Dibromofluoromethane (S)	104	%-	70-130		1		03/17/10 21:05	1868-53-7	
Toluene-d8 (S)	104	%-	70-130		1		03/17/10 21:05	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	4.7	mg/L	4.0	2.0	1		03/23/10 04:12	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Sample: DU-10101      Lab ID: 4029419018      Collected: 03/12/10 00:00      Received: 03/13/10 09:40      Matrix: Water									
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	4110	ug/L	5.0	0.12	1		03/16/10 16:55	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/17/10 23:49	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/17/10 23:49	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/17/10 23:49	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/17/10 23:49	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/17/10 23:49	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/17/10 23:49	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/17/10 23:49	75-34-3	
1,2-Dichloroethane	1.1	ug/L	1.0	0.36	1		03/17/10 23:49	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/17/10 23:49	75-35-4	
cis-1,2-Dichloroethene	3.9	ug/L	1.0	0.83	1		03/17/10 23:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/17/10 23:49	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/17/10 23:49	75-09-2	
Tetrachloroethene	1.8	ug/L	1.0	0.45	1		03/17/10 23:49	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/17/10 23:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/17/10 23:49	79-00-5	
1,1,2-Trichloroethene	4.5	ug/L	1.0	0.48	1		03/17/10 23:49	79-01-6	
Vinyl chloride	2.9	ug/L	1.0	0.18	1		03/17/10 23:49	75-01-4	
4-Bromofluorobenzene (S)	95	%-	70-130		1		03/17/10 23:49	460-00-4	
Dibromofluoromethane (S)	107	%-	70-130		1		03/17/10 23:49	1868-53-7	
Toluene-d8 (S)	104	%-	70-130		1		03/17/10 23:49	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	4.7	mg/L	4.0	2.0	1		03/23/10 04:25	14808-79-8	

### QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

QC Batch:	ICP/3206	Analysis Method:	EPA 6010
QC Batch Method:	EPA 6010	Analysis Description:	ICP Metals. Trace. Dissolved
Associated Lab Samples:	4029419001, 4029419002, 4029419003, 4029419006, 4029419007, 4029419008, 4029419009, 4029419010, 4029419012, 4029419013, 4029419014, 4029419015, 4029419017		

METHOD BLANK:	274981	Matrix:	Water
Associated Lab Samples:	4029419001, 4029419002, 4029419003, 4029419006, 4029419007, 4029419008, 4029419009, 4029419010, 4029419012, 4029419013, 4029419014, 4029419015, 4029419017		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	5.0	03/16/10 17:11	

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	500	514	103	80-120	

Parameter		Units	4029345001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Manganese, Dissolved		ug/L	680	500	500	1150	1150	94	95	75-125	.4	20

### QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

QC Batch: ICP/3207 Analysis Method: EPA 6010  
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved  
Associated Lab Samples: 4029419018

METHOD BLANK: 274989 Matrix: Water  
Associated Lab Samples: 4029419018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	5.0	03/16/10 15:44	

LABORATORY CONTROL SAMPLE: 274990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	500	499	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 274991 274992

Parameter	Units	4029421005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Manganese, Dissolved	ug/L	2390	500	500	2810	2830	85	87	75-125	.4	20

## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

QC Batch: MSV/7192 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
Associated Lab Samples: 4029419001, 4029419002, 4029419003, 4029419004, 4029419005, 4029419006, 4029419008, 4029419009, 4029419010, 4029419011, 4029419012, 4029419013, 4029419014, 4029419015, 4029419016, 4029419017, 4029419018

METHOD BLANK: 274775 Matrix: Water  
Associated Lab Samples: 4029419001, 4029419002, 4029419003, 4029419004, 4029419005, 4029419006, 4029419008, 4029419009, 4029419010, 4029419011, 4029419012, 4029419013, 4029419014, 4029419015, 4029419016, 4029419017, 4029419018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	03/17/10 14:01	
1,1,2-Trichloroethane	ug/L	ND	1.0	03/17/10 14:01	
1,1-Dichloroethane	ug/L	ND	1.0	03/17/10 14:01	
1,1-Dichloroethene	ug/L	ND	1.0	03/17/10 14:01	
1,2-Dichloroethane	ug/L	ND	1.0	03/17/10 14:01	
2-Butanone (MEK)	ug/L	ND	20.0	03/17/10 14:01	
Acetone	ug/L	ND	20.0	03/17/10 14:01	
Benzene	ug/L	ND	1.0	03/17/10 14:01	
Chloroethane	ug/L	ND	1.0	03/17/10 14:01	
Chloroform	ug/L	ND	5.0	03/17/10 14:01	
Chloromethane	ug/L	ND	1.0	03/17/10 14:01	
cis-1,2-Dichloroethene	ug/L	ND	1.0	03/17/10 14:01	
Methylene Chloride	ug/L	0.47J	1.0	03/17/10 14:01	
Tetrachloroethene	ug/L	ND	1.0	03/17/10 14:01	
trans-1,2-Dichloroethene	ug/L	ND	1.0	03/17/10 14:01	
Trichloroethene	ug/L	ND	1.0	03/17/10 14:01	
Vinyl chloride	ug/L	ND	1.0	03/17/10 14:01	
4-Bromofluorobenzene (S)	%-	99	70-130	03/17/10 14:01	
Dibromofluoromethane (S)	%-	102	70-130	03/17/10 14:01	
Toluene-d8 (S)	%-	105	70-130	03/17/10 14:01	

LABORATORY CONTROL SAMPLE & LCSD: 274776

274777

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	52.4	51.3	105	103	70-132	2	20	
1,1,2-Trichloroethane	ug/L	50	52.2	50.5	104	101	70-130	3	20	
1,1-Dichloroethane	ug/L	50	54.0	53.2	108	106	70-130	1	20	
1,1-Dichloroethene	ug/L	50	42.9	44.3	86	89	70-130	3	20	
1,2-Dichloroethane	ug/L	50	51.0	49.9	102	100	70-134	2	20	
2-Butanone (MEK)	ug/L	50	50.8	47.2	102	94	36-181	7	35	
Acetone	ug/L	50	38.4	42.9	77	86	10-200	11	36	
Benzene	ug/L	50	52.7	52.2	105	104	70-131	1	20	
Chloroethane	ug/L	50	38.3	38.4	77	77	70-136	3	20	
Chloroform	ug/L	50	52.8	51.3	106	103	70-130	3	20	
Chloromethane	ug/L	50	36.7	36.3	73	73	54-148	1	20	
cis-1,2-Dichloroethene	ug/L	50	52.2	50.5	104	101	70-130	3	20	
Methylene Chloride	ug/L	50	45.4	45.0	91	90	66-130	8	20	
Tetrachloroethene	ug/L	50	49.9	47.9	100	96	75-130	4	20	

te: 03/29/2010 04:41 PM

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

LABORATORY CONTROL SAMPLE & LCSD: 274776			274777							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
trans-1,2-Dichloroethene	ug/L	50	50.9	49.6	102	99	70-130	3	20	
Trichloroethene	ug/L	50	51.6	49.5	103	99	70-130	4	20	
Vinyl chloride	ug/L	50	36.7	36.4	73	73	63-141	.6	20	
4-Bromofluorobenzene (S)	%-				103	102	70-130			
Dibromofluoromethane (S)	%-				104	105	70-130			
Toluene-d8 (S)	%-				103	103	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 275515			275516									
Parameter	Units	4029419005	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result										
1,1,1-Trichloroethane	ug/L	ND	50	50	52.7	53.7	105	107	70-137	2	20	
1,1,2-Trichloroethane	ug/L	ND	50	50	52.3	54.0	105	108	70-130	3	20	
1,1-Dichloroethane	ug/L	ND	50	50	53.4	54.7	106	109	70-130	2	20	
1,1-Dichloroethene	ug/L	ND	50	50	44.4	45.7	88	91	70-130	3	20	
1,2-Dichloroethane	ug/L	ND	50	50	50.4	52.2	101	104	69-134	4	20	
2-Butanone (MEK)	ug/L	ND	50	50	49.2	55.0	98	110	36-181	11	35	
acetone	ug/L	ND	50	50	44.4	47.5	80	86	10-200	7	36	
benzene	ug/L	ND	50	50	52.3	53.5	105	107	69-131	2	20	
Chloroethane	ug/L	ND	50	50	38.1	39.6	76	79	66-136	4	20	
Chloroform	ug/L	ND	50	50	52.9	54.7	104	107	70-130	3	20	
Chloromethane	ug/L	ND	50	50	36.2	37.8	72	76	54-148	4	20	
cis-1,2-Dichloroethene	ug/L	1.3	50	50	53.3	54.8	104	107	70-130	3	20	
Methylene Chloride	ug/L	0.53J	50	50	45.8	46.2	91	91	64-130	.7	20	
Tetrachloroethene	ug/L	1.0	50	50	50.0	50.8	98	100	70-130	2	20	
trans-1,2-Dichloroethene	ug/L	ND	50	50	50.3	51.5	101	103	70-130	2	20	
Trichloroethene	ug/L	2.1	50	50	53.3	54.1	103	104	70-130	1	20	
Vinyl chloride	ug/L	ND	50	50	35.1	35.7	70	71	59-141	2	20	
4-Bromofluorobenzene (S)	%-						101	102	70-130			
Dibromofluoromethane (S)	%-						103	105	70-130			
Toluene-d8 (S)	%-						102	103	70-130			



## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

QC Batch: WETA/5968 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 4029419001, 4029419002, 4029419003, 4029419004, 4029419005, 4029419006, 4029419008, 4029419009, 4029419010, 4029419012, 4029419013, 4029419014, 4029419015, 4029419016, 4029419017, 4029419018

METHOD BLANK: 277650 Matrix: Water  
Associated Lab Samples: 4029419001, 4029419002, 4029419003, 4029419004, 4029419005, 4029419006, 4029419008, 4029419009, 4029419010, 4029419012, 4029419013, 4029419014, 4029419015, 4029419016, 4029419017, 4029419018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	4.0	03/22/10 23:20	

LABORATORY CONTROL SAMPLE: 277651

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	19.8	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 277652 277653

Parameter	Units	4029419001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Sulfate	mg/L	4.1	20	20	22.4	22.2	91	91	90-110	.7	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 277654 277655

Parameter	Units	4029419014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Sulfate	mg/L	3.6J	20	20	21.7	21.8	91	91	90-110	4	20

## QUALIFIERS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

P4 Sample field preservation does not meet EPA or method recommendations for this analysis.

Z2 Analyte present in the associated method blank above the detection limit.

Z3 Methylene chloride is a common laboratory contaminant. Results for this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029419

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4029419001	B-1	EPA 6010	ICP/3206		
4029419002	MLW-1-1	EPA 6010	ICP/3206		
4029419003	MLW-1-2	EPA 6010	ICP/3206		
4029419006	MW-2-2	EPA 6010	ICP/3206		
4029419007	MLW-1-4	EPA 6010	ICP/3206		
4029419008	MLW-3-2	EPA 6010	ICP/3206		
4029419009	B-2	EPA 6010	ICP/3206		
4029419010	B-3	EPA 6010	ICP/3206		
4029419012	B-4	EPA 6010	ICP/3206		
4029419013	MW-2-1	EPA 6010	ICP/3206		
4029419014	MW-4-1	EPA 6010	ICP/3206		
4029419015	MLW-3-3	EPA 6010	ICP/3206		
4029419017	MW-4-2	EPA 6010	ICP/3206		
4029419018	DU-10101	EPA 6010	ICP/3207		
4029419001	B-1	EPA 8260	MSV/7192		
4029419002	MLW-1-1	EPA 8260	MSV/7192		
4029419003	MLW-1-2	EPA 8260	MSV/7192		
4029419004	MLW-1-3	EPA 8260	MSV/7192		
4029419005	MLW-1-4	EPA 8260	MSV/7192		
4029419006	MW-2-2	EPA 8260	MSV/7192		
4029419008	MLW-3-2	EPA 8260	MSV/7192		
4029419009	B-2	EPA 8260	MSV/7192		
4029419010	B-3	EPA 8260	MSV/7192		
4029419011	TBLK-10101	EPA 8260	MSV/7192		
4029419012	B-4	EPA 8260	MSV/7192		
4029419013	MW-2-1	EPA 8260	MSV/7192		
4029419014	MW-4-1	EPA 8260	MSV/7192		
4029419015	MLW-3-3	EPA 8260	MSV/7192		
4029419016	MLW-3-4	EPA 8260	MSV/7192		
4029419017	MW-4-2	EPA 8260	MSV/7192		
4029419018	DU-10101	EPA 8260	MSV/7192		
4029419001	B-1	EPA 300.0	WETA/5968		
4029419002	MLW-1-1	EPA 300.0	WETA/5968		
4029419003	MLW-1-2	EPA 300.0	WETA/5968		
4029419004	MLW-1-3	EPA 300.0	WETA/5968		
4029419005	MLW-1-4	EPA 300.0	WETA/5968		
4029419006	MW-2-2	EPA 300.0	WETA/5968		
4029419008	MLW-3-2	EPA 300.0	WETA/5968		
4029419009	B-2	EPA 300.0	WETA/5968		
4029419010	B-3	EPA 300.0	WETA/5968		
4029419012	B-4	EPA 300.0	WETA/5968		
4029419013	MW-2-1	EPA 300.0	WETA/5968		
4029419014	MW-4-1	EPA 300.0	WETA/5968		
4029419015	MLW-3-3	EPA 300.0	WETA/5968		
4029419016	MLW-3-4	EPA 300.0	WETA/5968		
4029419017	MW-4-2	EPA 300.0	WETA/5968		
4029419018	DU-10101	EPA 300.0	WETA/5968		



Pace

## CHAIN OF CUSTODY RECORD

Km

4029419  
7736

30 Patewood Drive, Suite 100, Patewood Plaza One, Greenville, SC 29615-3535  
Phone 864/281-0030 • Fax 864/281-0288

Project No. 71243.61		Project/Client Medley Farm		Total Number of Containers	MATRIX	Filtered (Yes/No) <u>ENAY</u>										PRESERVED CODES A — NONE B — HNO <sub>3</sub> C — H <sub>2</sub> SO <sub>4</sub> D — NaOH E — HCl F — METHANOL G — _____
Project Manager/Contact Person: S. Webb/L. Clark						Preserved (Code) <u>ENAB</u>										
Lab No.	Yr. <u>10</u> Date	Time	Sample Station ID			Analyses Requested <u>Vol. Sulfate Diss. Manganese</u>										
001	3/9	1350	B-1	5	GW	X	X	X							3-40m B 3-250m AD	
002		1055	MLW-1-1	5		X	X	X								
003		1135	MLW-1-2	5		X	X	X								
004		1310	MLW-1-3	4		X	X									
005		1330	MLW-1-4	4		X	X									
006		1500	MW-2-2	5		X	X	X								
007	3/10	1425	MLW-1-4	1				X								
008		1505	MLW-3-2	5		X	X	X								
009		1340	B-2	5		X	X	X								
010		1600	B-3	5		X	X	X								

## SPECIAL INSTRUCTIONS

Relinquished by (Signature) <u>J. Webb</u> Date/Time <u>3-12-10</u>		Received by (Signature) <u>FedEx</u> Date/Time <u>3-12-10</u>		HAZARDS ASSOCIATED WITH SAMPLES <input type="checkbox"/> Flammable <input type="checkbox"/> Corrosive <input type="checkbox"/> Highly Toxic <input type="checkbox"/> Other (list) _____	Turn Around (circle one) Normal Rush
Relinquished by (Signature) <u>FedEx</u> Date/Time <u>3/12/10 0940</u>		Received by (Signature) <u>[Signature]</u> Date/Time <u>3/12/10 0940</u>			Report Due _____
Relinquished by (Signature) _____ Date/Time _____		Received by (Signature) _____ Date/Time _____			(For Lab Use Only) Receipt Temp: _____ Temp Blank <u>Y</u> N <u>3°C</u>
Custody Seal: Present/Absent Intact/Not Intact Seal #s _____					



4029419

7736.

Project No. 71243.61	Project/Client: Medley Farm
Project Manager/Contact Person: S. Webb/L. Clark	

Lab No.	Yr. <sup>10</sup> Date	Time	Sample Station ID	Total No. of Containers	MATRIX	Analyte										Comments:
						VOCs	Sulfat	Diss. I								
011	—	—	TBLK-1010	2	DI	X									2-40ml B	
012	3/11	1540	B-4	5	GW	X	X	X							3-40ml B 2-950ml AD	
013	3/12	1110	MW-2-1	5	(	X	X	X							↓     1-250ml A	
014	/	1210	MW-4-1	5		X	X	X								
015	/	1055	MLW-3-3	5		X	X	X								
016	/	1130	MLW-3-4	4		X	X									
017	/	1310	MW-4-2	5		X	X	X								
018	—	—	DU-1010	5	GW	X	X	X							↓	

SAMPLER Relinquished by (Signature) <u>[Signature]</u> Date/Time <u>3-12-10</u>		Received by (Signature) <u>FeEx</u> Date/Time <u>3-12-10</u>		HAZARDS ASSOCIATED WITH SAMPLES <input type="checkbox"/> Flammable <input type="checkbox"/> Corrosive <input type="checkbox"/> Highly Toxic <input type="checkbox"/> Other (list) _____	Turn Around (circle one)      Normal      Rush Report Due _____	
Relinquished by (Signature) <u>[Signature]</u> Date/Time <u>3/13/10 0940</u>		Received by (Signature) <u>[Signature]</u> Date/Time <u>3/13/10 0940</u>			(For Lab Use Only)  Receipt Temp: _____ Temp Blank <u>(Y)</u> N <u>7</u>	
Relinquished by (Signature) _____ Date/Time _____		Received by (Signature) _____ Date/Time _____				
Custody Seal: Present/Absent    Intact/Not Intact    Seal #s _____						_____

402-419

PROJECT ORDER  
Medley Farm - March 2010

Project: Medley Farm  
Project Number: 71243.61  
Sample Date: March 8 - 23, 2010  
Turnaround Time: Standard  
Detection Limit: Federal DW MCL where applicable  
QC Package: Level 2  
RMT format EDD required.

Laboratory: Microseeps  
220 William Pitt Way  
Pittsburgh, PA 15238  
Ph: (412) 826-5245 Fax: (412) 826-3433  
Contact: Debbie Hallo or Becky Hand

Project Manager: Steve Webb  
Project Contact: Terry Hertz/Lisa Clark  
Laboratory: Pace - Green Bay, WI  
1241 Bellevue St.  
Greenbay, WI 54302  
Ph: 1-800-7-ENCHEM Fax: 920-469-8827  
Contact: Kang Khang

MCL reporting (NOT MDL unless needed for MCL); T flagging; no SIM.

Analyte	VOCs	Field Measured Dissolved Ferrous Iron	Dissolved Manganese	Sulfate	Volatile Fatty Acids	FIELD MEAS pH, DO, ORP, Temp, Spec. Cond.	COMMENTS
Method	8260B*	Field Kit	6010B	300.0	AM21G		
Bottle	A	B	C	D	E		
Sample ID							Measure water levels on all wells.
MLW-1-3	X	X	X	X	X	X	
MLW-1-4	X	X	X	X	X	X	
MLW-3-1	X	X	X	X	X	X	
MLW-3-2	X	X	X	X	X	X	
MLW-3-3	X	X	X	X	X	X	
MLW-3-4	X	X	X	X	X	X	
MW-3D	X	X	X	X	X	X	
MW-2-1	X	X	X	X	X	X	
MW-2-2	X	X	X	X	X	X	
MW-4-1	X	X	X	X	X	X	
MW-4-2	X	X	X	X	X	X	
SW-101	X	X	X	X	X	X	
SW-102	X	X	X	X	X	X	
SW-103	X	X	X	X	X	X	
SW-104	X	X	X	X	X	X	
SW-106	X	X	X	X	X	X	
SW-108	X	X	X	X	X	X	
SW-109	X	X	X	X	X	X	
SW-201	X	X	X	X	X	X	
SW-202	X	X	X	X	X	X	
SW-1	X	X	X	X	X	X	
SW-3	X	X	X	X	X	X	
SW-4	X	X	X	X	X	X	
SWS-1	X					X	
SWS-2	X					X	
SWS-3	X					X	
DU-10101	X		X	X	X		collect from groundwater, NOT surface water
DU-10102	X		X	X	X		collect from groundwater, NOT surface water



40-2414

## PROJECT K ORDER

Medley Farm - March 2010

Project: Medley Farm

Project Number: 71243.61

Sample Date: March 8 - 23, 2010

Turnaround Time: Standard

Detection Limit: Federal DW MCL where applicable

QC Package: Level 2

RMT format EDD required.

Laboratory: Microseeps

220 William Pitt Way

Pittsburgh, PA 15238

Ph: (412) 826-5245 Fax: (412) 826-3433

Contact: Debbie Hallo or Becky Hand

Project Manager: Steve Webb

Project Contact: Terry Hertz/Lisa Clark

Laboratory: Pace - Green Bay, WI

1241 Bellevue St.

Greenbay, WI 54302

Ph: 1-800-7-ENCHEM Fax: 920-469-8827

Contact: Kang Khang

MCL reporting (NOT MDL unless needed for MCL); "J" flagging; no SIM.

Analyte	VOCs	Field Measured Dissolved Ferrous Iron	Dissolved Manganese	Sulfate	Volatile Fatty Acids	FIELD MEAS pH, DO, ORP, Temp, Spec. Cond.	COMMENTS
Method	8260B*	Field Kit	6010B	300.0	AM21G		
Bottle	A	B	C	D	E		
Sample ID							Measure water levels on all wells.
DU-10103	X		X	X	X		collect from groundwater, NOT surface water
FBLK-10101	X	X	X	X	X		
RBLK-10101	X	X	X	X	X		
TBLK-10101	X						
TBLK-10102	X						
TBLK-10103	X						
TBLK-10104	X						
TBLK-10105	X						
TBLK-10106	X						

A - VOCs: three 40 mL septum vials; HCl preservative; ice; HT - 14 days

B - Dissolved Ferrous Iron: Chemetrics field test kit; HT - ASAP

C - Dissolved Manganese: one 125 mL plastic; HNO<sub>3</sub> to pH<2; ice; HT - 6 months

D - Sulfate: one 500 mL plastic; no preservative; ice; HT - 28 days; 14 days

E - Volatile Fatty Acids: two 40 mL clear; no preservative; ice; HT - preferred 14 day



## Sample Condition Upon Receipt

Pace Analytical Services, Inc.  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302

Client Name: PMT

Project # 4029419

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other \_\_\_\_\_

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None Other \_\_\_\_\_

Thermometer Used 90

Type of Ice: ☒ Wet ☐ Blue Dry None ☐ Samples on ice, cooling process has begun

Cooler Temperature 2°C

Biological Tissue is Frozen: ☐ yes ☐ no

Temp Blank Present: ☒ yes ☐ no

Temp should be above freezing to 6°C for all sample except Biota.

Biota Samples should be received ≤ 0°C.

Comments:

Person examining contents:

Date: 3/13/10

Initials: AE

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Ice Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>W</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <u>AE</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review:

[Signature]

Date: 3/15/10

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

Page: Page 1 of 20  
Lab Proj #: P1003157  
Report Date: 04/02/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

### Laboratory Results

Total pages in data package: 24

<u>Lab Sample #</u>	<u>Client Sample ID</u>
P1003157-01	B-1
P1003157-02	MLW-1-1
P1003157-03	MLW-1-2
P1003157-04	MLW-1-3
P1003157-05	MLW-1-4
P1003157-06	MW-2-2
P1003157-07	MLW-3-2
P1003157-08	B-2
P1003157-09	B-3
P1003157-10	B-4
P1003157-11	MW-2-1
P1003157-12	MW-4-1
P1003157-13	MW-4-2
P1003157-14	MLW-3-3
P1003157-15	MLW-3-4
P1003157-16	DU-10101

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By: Debbie Hallo (HA) Date: 4-2-10

Project Manager: Debbie Hallo

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

*As a valued client we would appreciate your comments on our service.  
Please call customer service at (412)826-5245 or email customerservice@microseeps.com.*

CoC-SIGNED; TEMP-OK; HT-OK; NARR-OK

MBLKS - CLEAN

CSs - RECS OK

MS/MSD - BATCH QC SAMPLE HAS

LOW BUTYRIC ACID REC

AND THREE HIGH RPDs. NO FLAGS SINCE BATCH QC

- MLW-3-2 USED FOR MS/MSD. RECS + RPDs OK.

FIELD DUP - DU-10101 IS A FIELD DUPLICATE OF MW-4-2. NO DETECTIONS

Client Name: RMT, Inc. IN DU-10101 OR MW-4-2.

Page: Page 1 of 20

Contact: Steve Webb

NO RPDs TO CALCULATE.

Lab Proj #: P1003157

Address: Patewood Plaza One

Report Date: 04/02/10

Suite 100

Client Proj Name: Medley Farm

30 Patewood Drive

Client Proj #: 00-71243.61 T1

Greenville, SC 29615-3535

### Laboratory Results

Total pages in data package: 24

Lab Sample #	Client Sample ID
P1003157-01	B-1
P1003157-02	MLW-1-1
P1003157-03	MLW-1-2
P1003157-04	MLW-1-3
P1003157-05	MLW-1-4
P1003157-06	MW-2-2
P1003157-07	MLW-3-2
P1003157-08	B-2
P1003157-09	B-3
P1003157-10	B-4
P1003157-11	MW-2-1
P1003157-12	MW-4-1
P1003157-13	MW-4-2
P1003157-14	MLW-3-3
P1003157-15	MLW-3-4
P1003157-16	DU-10101

NO FLAGS T L # 4/5/10

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By:

Debbie Hallo (HHA)

Date:

4.2.10

Project Manager:

Debbie Hallo

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

As a valued client we would appreciate your comments on our service.

Please call customer service at (412)826-5245 or email [customerservice@microseeps.com](mailto:customerservice@microseeps.com).

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

Page: Page 2 of 20  
Lab Proj #: P1003157  
Report Date: 04/02/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

**Case Narrative:** The percent recovery for the MS analysis for butyric acid was outside of control limits. The RPD for the MS/MSD analyses for acetic, propionic, and butyric acids was outside of control limits.



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 3 of 20  
 Lab Proj #: P1003157  
 Report Date: 04/02/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
B-1	Water	P1003157-01	09 Mar. 10 13:50	15 Mar. 10 8:12			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid	UM	< 1.0	1.0	mg/L	AM21G	3/30/10	td
N Butyric Acid	UM	< 1.0	1.0	mg/L	AM21G	3/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/30/10	td
N Propionic Acid	UM	< 1.0	1.0	mg/L	AM21G	3/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	3/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis



Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
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Page: Page 4 of 20  
Lab Proj #: P1003157  
Report Date: 04/02/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
MLW-1-1	Water	P1003157-02	09 Mar. 10 10:55	15 Mar. 10 8:12			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	M	7.2	1.0	mg/L	AM21G	3/30/10	td
N Butyric Acid	UM	< 1.0	1.0	mg/L	AM21G	3/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/30/10	td
N Propionic Acid	JM	0.5	1.0	mg/L	AM21G	3/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	3/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
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 Greenville, SC 29615-3535

Page: Page 5 of 20  
 Lab Proj #: P1003157  
 Report Date: 04/02/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
MLW-1-2	Water	P1003157-03	09 Mar. 10 11:35	15 Mar. 10 8:12			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
SemiVolatiles							
N Acetic Acid	M	24.0	1.0	mg/L	AM21G	3/30/10	td
N Butyric Acid	UM	< 1.0	1.0	mg/L	AM21G	3/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/30/10	td
N Propionic Acid	M	4.4	1.0	mg/L	AM21G	3/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	3/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 6 of 20  
 Lab Proj #: P1003157  
 Report Date: 04/02/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
MLW-1-3	Water	P1003157-04	09 Mar. 10 13:10	15 Mar. 10 8:12			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	UM	< 1.0	1.0	mg/L	AM21G	3/30/10	td
N Butyric Acid	UM	< 1.0	1.0	mg/L	AM21G	3/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/30/10	td
N Propionic Acid	M	2.6	1.0	mg/L	AM21G	3/30/10	td
N Pyruvic Acid	J	2.5	10.0	mg/L	AM21G	3/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

Page: Page 7 of 20  
Lab Proj #: P1003157  
Report Date: 04/02/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
MLW-1-4	Water	P1003157-05	09 Mar. 10 13:30	15 Mar. 10 8:12			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	UM	< 1.0	1.0	mg/L	AM21G	3/30/10	td
N Butyric Acid	UM	< 1.0	1.0	mg/L	AM21G	3/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/30/10	td
N Propionic Acid	UM	< 1.0	1.0	mg/L	AM21G	3/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	3/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 8 of 20  
 Lab Proj #: P1003157  
 Report Date: 04/02/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
MW-2-2	Water	P1003157-06	09 Mar. 10 15:00	15 Mar. 10 8:12			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	UM	< 1.0	1.0	mg/L	AM21G	3/30/10	td
N Butyric Acid	UM	< 1.0	1.0	mg/L	AM21G	3/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/30/10	td
N Propionic Acid	UM	< 1.0	1.0	mg/L	AM21G	3/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	3/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 9 of 20  
 Lab Proj #: P1003157  
 Report Date: 04/02/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
MLW-3-2	Water	P1003157-07	10 Mar. 10 15:05	15 Mar. 10 8:12			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/31/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	3/31/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis



Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 10 of 20  
 Lab Proj #: P1003157  
 Report Date: 04/02/10  
 Client Proj Name: Medley Farm.  
 Client Proj #: 00-71243.61 T1

Sample Description	Matrix	Lab Sample #	Sampled Date/Time		Received		
B-2	Water	P1003157-08	10 Mar. 10 13:40		15 Mar. 10 8:12		
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/31/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	3/31/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD; SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

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Lab Proj #: P1003157  
Report Date: 04/02/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>		<u>Received</u>		
B-3	Water	P1003157-09	10 Mar. 10 16:00		15 Mar. 10 8:12		
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/31/10	td
N Propionic Acid	J	0.6	1.0	mg/L	AM21G	3/31/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	3/31/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 12 of 20  
 Lab Proj #: P1003157  
 Report Date: 04/02/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
B-4	Water	P1003157-10	11 Mar. 10 15:40	15 Mar. 10 8:12			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/31/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	3/31/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

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Lab Proj #: P1003157  
Report Date: 04/02/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>		<u>Sampled Date/Time</u>		<u>Received</u>	
MW-2-1	Water	P1003157-11		12 Mar. 10 11:10		15 Mar. 10 8:12	
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/31/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	3/31/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

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Lab Proj #: P1003157  
Report Date: 04/02/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>			<u>Sampled Date/Time</u>	<u>Received</u>	
MW-4-1	Water	P1003157-12			12 Mar. 10 12:10	15 Mar. 10 8:12	
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/31/10	td
N Propionic Acid		1.6	1.0	mg/L	AM21G	3/31/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	3/31/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

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Lab Proj #: P1003157  
Report Date: 04/02/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>		<u>Sampled Date/Time</u>		<u>Received</u>	
MW-4-2	Water	P1003157-13		12 Mar. 10 13:10		15 Mar. 10 8:12	
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/31/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	3/31/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

Page: Page 16 of 20  
Lab Proj #: P1003157  
Report Date: 04/02/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243:61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
MLW-3-3	Water	P1003157-14	12 Mar. 10 10:55	15 Mar. 10 8:12			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	J	0.9	1.0	mg/L	AM21G	3/31/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/31/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Pyruvic Acid	J	4.5	10.0	mg/L	AM21G	3/31/10	td



Data Qualifiers: J - estimated value, U - Non-detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

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 Lab Proj #: P1003157  
 Report Date: 04/02/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>		<u>Received</u>		
MLW-3-4	Water	P1003157-15	12 Mar. 10 11:30		15 Mar. 10 8:12		
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
SemiVolatiles							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/31/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Pyruvic Acid	J	1.7	10.0	mg/L	AM21G	3/31/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis



Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
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30 Patewood Drive  
Greenville, SC 29615-3535

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Lab Proj #: P1003157  
Report Date: 04/02/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
DU-10101	Water	P1003157-16	12 Mar. 10 0:00	15 Mar. 10 8:12			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	3/31/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	3/31/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	3/31/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 19 of 20  
 Lab Proj #: P1003157  
 Report Date: 04/02/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

**Prep Method:** Analysis of Volatile Fatty Acids in Water  
**Analysis Method:** Analysis of Volatile Fatty Acids in Water

**M100331008-MB**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>RDL</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	< 1.0 mg/L		1.0		- NA
Propionic Acid	< 1.0 mg/L		1.0		- NA
Butyric Acid	< 1.0 mg/L		1.0		- NA
Lactic Acid	< 25.0 mg/L		25.0		- NA
Pyruvic Acid	< 10.0 mg/L		10.0		- NA

**M100331008-LCS**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	110.0 mg/L	100.00	110.00	70 - 130
Propionic Acid	110.0 mg/L	100.00	110.00	70 - 130
Butyric Acid	97.0 mg/L	100.00	97.00	70 - 130
Lactic Acid	100.0 mg/L	100.00	100.00	70 - 130
Pyruvic Acid	110.0 mg/L	100.00	110.00	70 - 130

**P1003147-02A-MS**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	85.0 mg/L	100.00	85.00	70 - 130
Propionic Acid	76.0 mg/L	100.00	76.00	70 - 130
Butyric Acid	61.0 mg/L	100.00	61.00	70 - 130
Lactic Acid	90.0 mg/L	100.00	90.00	70 - 130
Pyruvic Acid	120.0 mg/L	100.00	120.00	70 - 130

**P1003147-02A-MSD**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>	<u>RPD</u>	<u>RPD Ctl Limits</u>
Acetic Acid	110.0 mg/L	100.00	110.00	70 - 130	25.64	0 - 20
Propionic Acid	110.0 mg/L	100.00	110.00	70 - 130	36.56	0 - 20
Butyric Acid	96.0 mg/L	100.00	96.00	70 - 130	44.59	0 - 20
Lactic Acid	110.0 mg/L	100.00	110.00	70 - 130	20.00	0 - 20
Pyruvic Acid	120.0 mg/L	100.00	120.00	70 - 130	0.00	0 - 20

  Outlined Results indicate results outside of Control limits



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 20 of 20  
 Lab Proj #: P1003157  
 Report Date: 04/02/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

**Prep Method:** Analysis of Volatile Fatty Acids in Water  
**Analysis Method:** Analysis of Volatile Fatty Acids in Water

**M100401036-MB**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>RDL</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	< 1.0 mg/L		1.0		- NA
Propionic Acid	< 1.0 mg/L		1.0		- NA
Butyric Acid	< 1.0 mg/L		1.0		- NA
Lactic Acid	< 25.0 mg/L		25.0		- NA
Pyruvic Acid	< 10.0 mg/L		10.0		- NA

**M100401036-LCS**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	92.0 mg/L	100.00	92.00	70 - 130
Propionic Acid	83.0 mg/L	100.00	83.00	70 - 130
Butyric Acid	73.0 mg/L	100.00	73.00	70 - 130
Lactic Acid	100.0 mg/L	100.00	100.00	70 - 130
Pyruvic Acid	100.0 mg/L	100.00	100.00	70 - 130

**P1003157-07A-MS**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	88.0 mg/L	100.00	88.00	70 - 130
Propionic Acid	87.0 mg/L	100.00	87.00	70 - 130
Butyric Acid	79.0 mg/L	100.00	79.00	70 - 130
Lactic Acid	100.0 mg/L	100.00	100.00	70 - 130
Pyruvic Acid	100.0 mg/L	100.00	100.00	70 - 130

**P1003157-07A-MSD**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>	<u>RPD</u>	<u>RPD Ctl Limits</u>
Acetic Acid	100.0 mg/L	100.00	100.00	70 - 130	12.77	0 - 20
Propionic Acid	94.0 mg/L	100.00	94.00	70 - 130	7.73	0 - 20
Butyric Acid	88.0 mg/L	100.00	88.00	70 - 130	10.78	0 - 20
Lactic Acid	87.0 mg/L	100.00	87.00	70 - 130	13.90	0 - 20
Pyruvic Acid	90.0 mg/L	100.00	90.00	70 - 130	10.53	0 - 20

Outlined Results indicate results outside of Control limits



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis



Microseeps

# CHAIN OF CUSTODY RECORD

P1003157

77306

30 Patewood Drive, Suite 100, Patewood Plaza One, Greenville, SC 29615-3535  
Phone 864/281-0030 • Fax 864/281-0288

Project No. <u>71243.61</u>		Project/Client: <u>Medley Farm</u>		Total Number of Containers	MATRIX	Filtered (Yes/No) <u>N</u>										Analyses Requested <u>Vol: H<sub>2</sub>O, Fatty Acids</u>	PRESERVED CODES A — NONE B — HNO <sub>3</sub> C — H <sub>2</sub> SO <sub>4</sub> D — NaOH E — HCl F — METHANOL G — _____
Project Manager/Contact Person: <u>S. Webb / L. Clark</u>		Preserved (Code) <u>A</u>															
Lab No.	Yr. <u>10</u> Date	Time	Sample Station ID			Comments:											
1	3/9	1350	B-1	2	GW	X											
2		1055	MLW-1-1	2		X											
3		1135	MLW-1-2	2		X											
4		1310	MLW-1-3	2		X											
5		1330	MLW-1-4	2		X											
6		1500	MW-2-2	2		X											
7	3/10	1505	MLW-3-2	2		X											
8		1340	B-2	2		X											
9		1600	B-3	2		X											
10	3/11	1540	B-4	2		X											
SPECIAL INSTRUCTIONS																	
8682-8759-1563																	
SAMPLER Relinquished by (Signature) <u>[Signature]</u>		Date/Time <u>3-12-10</u>		Received by (Signature) <u>[Signature]</u>		Date/Time <u>3-12-10</u>		HAZARDS ASSOCIATED WITH SAMPLES		Turn Around (circle one) Normal Rush							
Relinquished by (Signature)		Date/Time		Received by (Signature)		Date/Time		<input type="checkbox"/> Flammable		Report Due _____							
Relinquished by (Signature)		Date/Time		Received by (Signature)		Date/Time		<input type="checkbox"/> Corrosive		(For Lab Use Only)							
Relinquished by (Signature)		Date/Time		Received by (Signature)		Date/Time		<input type="checkbox"/> Highly Toxic									
Relinquished by (Signature)		Date/Time		Received by (Signature)		Date/Time		<input type="checkbox"/> Other (list) _____		Receipt Temp: _____							
Custody Seal: Present/Absent		Intact/Not Intact		Seal #s						Temp Blank Y N							
										Receipt pH (Wet/Metals) _____							



Microseeps

# CHAIN OF CUSTODY RECORD

P1003157

77307

30 Patewood Drive, Suite 100, Patewood Plaza One, Greenville, SC 29615-3535  
Phone 864/281-0030 • Fax 864/281-0288

Project No. 71243.61		Project/Client: Medley Farm		Total Number of Containers	MATRIX	Filtered (Yes/No) N										Analogues Requested Volatile Fatty Acid	Preserved (Code) A	PRESERVED CODES A — NONE B — HNO <sub>3</sub> C — H <sub>2</sub> SO <sub>4</sub> D — NaOH E — HCl F — METHANOL G —	
Project Manager/Contact Person: S. Webb / L. Clark						Comments:													
Lab No.	Yr. 10	Date	Time			Sample Station ID													
11	3/12	1110		MW-2-1	2	GW	X												
12		1210		MW-4-1	2		X												
13		1310		MW-4-2	2		X												
14		1055		MLW-3-3	2		X												
15		1130		MLW-3-4	2		X												
16	—	—		DU-10101															

## SPECIAL INSTRUCTIONS

SAMPLER Relinquished by (Signature)  Date/Time 3-12-10		Received by (Signature) Fed Ex 3-12-10 Date/Time		HAZARDS ASSOCIATED WITH SAMPLES <input type="checkbox"/> Flammable <input type="checkbox"/> Corrosive <input type="checkbox"/> Highly Toxic <input type="checkbox"/> Other (list) _____	Turn Around (circle one) Normal Rush	
Relinquished by (Signature) _____ Date/Time		Received by (Signature) _____ Date/Time			Report Due _____	
Relinquished by (Signature) _____ Date/Time		Received by (Signature)  Date/Time 3/15/10			(For Lab Use Only) Receipt Temp: _____ Receipt pH: _____ Temp Blank Y N (Wet/Metals)	
Custody Seal: Present/Absent Intact/Not Intact Seal #s						

## Cooler Receipt Form

Client: RMT, Inc.

Client Code: RMTSC

LabProject #: P1003157

Project: Medley Farm

Cooler ID: 1

**A. Preliminary Examination Phase:**

Date cooler opened: 3/15/2010

Cooler opened by: dp

1. Was airbill Attached? N/A

Airbill #:

Carrier Name: FedEx

2. Custody Seals? N/A

How many? 0

Location:

Seal Name:

3. Seals intact? Yes

4. Screened for radiation? N/A

5. COC Attached? Yes

Properly Completed? Yes

Signed by employee? Yes

6. Project Identification from custody paper: Medley Farm

7. Preservative: Yes

Temperature: 4

Comments:

**B. Log-In Phase: Samples Log-in Date:**

3/15/2010

Log-in By:

dp

1. Packing Type: Other

Were samples in separate bags? N/A

3. Were containers intact? Yes

Labels agree with COC? Yes

4. Number of bottles received: 32

Number of samples received: 16

5. Correct containers used? Yes

Correct preservatives added? N/A

6. Sufficient sample volume? Yes

7. Bubbles in VOA samples? N/A

8. Was Project manager called and status discussed? N/A

Comments:

Have designate person initial here to acknowledge receipt of cooler:

Date:

3/15/10

Microseeps Project Number: PA03157

Date: \_\_\_\_\_ Time of Receipt: \_\_\_\_\_ Receiver: \_\_\_\_\_

Client: \_\_\_\_\_

REASON FOR NON-CONFORMANCE:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ACTION TAKEN:

Client name: Steve Webb Date: 3/15 Time: \_\_\_\_\_

Left message - does he want the dupe analysed

3/17 spoke w/ Steve - he will call back

Fixa - Run analysis on dupe

Customer Service Initials: 3/17

Date: DT

April 02, 2010

Mark Bailey  
RMT Greenville  
30 Patewood Drive  
Suite 100, Patewood Plaza One  
Greenville, SC 296153535

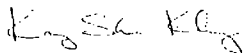
RE: Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Dear Mark Bailey:

Enclosed are the analytical results for sample(s) received by the laboratory on March 19, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kang Khang

kang.khang@pacelabs.com  
Project Manager

Enclosures

**REPORT OF LABORATORY ANALYSIS**

Page 1 of 28

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CoC-SIGNED; TEMP-OK; HT-OK; NARR-OK

SURR-RECS OK

MBLKS - CLEAN

LCSs - RECS OK

MS/MSD - Mn, DISS - BATCH QC, RECS AND RPD OK.

- SW-4 USED FOR MS/MSD, RECS  
AND RPD OK.

- VOCs - BATCH QC, RECS AND RPDs OK

- SO<sub>4</sub> - BATCH QC, RECS AND RPD OK

- DP-3-2 USED FOR MS/MSD, RPD OK,  
RECS LOW FOR MS AND MSD.

A "J" FLAG APPLIED TO SULFATE IN  
DP-3-2.

April 02, 2010

Mark Bailey  
RMT Greenville  
30 Patewood Drive  
Suite 100, Patewood Plaza One  
Greenville, SC 296153535

RE: Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Dear Mark Bailey:

Enclosed are the analytical results for sample(s) received by the laboratory on March 19, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kang Khang

kang.khang@pacelabs.com  
Project Manager

Enclosures

TRIP  
~~QA~~ ~~TRIP~~ BLANK - 0.49 J ug/L METHYLENE CHLORIDE  
RBLK-10101 - 0.62 J ug/L METHYLENE CHLORIDE  
- 2.6 J ug/L DISSOLVED Mn  
FBLK-10101 - 0.12 J ug/L DISSOLVED Mn  
- ~~5.0~~ J ug/L ACETONE  
- 0.58 J ug/L METHYLENE CHLORIDE

A "U" FLAG IS ASSIGNED TO METHYLENE  
CHLORIDE IN THE FOLLOWING SAMPLES: SWS-3,  
SWS-2, A-1, BW-2, DP-2-1, DP-3-1 AND DP-3-2.

A "U" FLAG IS ASSIGNED TO DISSOLVED MANGANESE  
IN BW-105 AND BW-2

REPORT OF LABORATORY ANALYSIS

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TZ#  
4/5/10

## CERTIFICATIONS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

---

### Green Bay Certification IDs

California Certification #: 09268CA  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
New York Certification #: 11887

New York Certification #: 11888  
North Carolina Certification #: 503  
North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444  
1241 Bellevue Street Green Bay, WI 54302

---

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4029585001	DP-3-2	Water	03/15/10 13:20	03/19/10 10:10
4029585002	DP-3-1	Water	03/15/10 18:20	03/19/10 10:10
4029585003	DP-2-1	Water	03/16/10 11:40	03/19/10 10:10
4029585004	BW-105	Water	03/16/10 14:45	03/19/10 10:10
4029585005	SW-4	Water	03/16/10 15:20	03/19/10 10:10
4029585006	BW-2	Water	03/16/10 16:20	03/19/10 10:10
4029585007	A-1	Water	03/17/10 15:20	03/19/10 10:10
4029585008	A-2	Water	03/18/10 13:00	03/19/10 10:10
4029585009	FBLK 10101	Water	03/18/10 12:20	03/19/10 10:10
4029585010	RBLK 10101	Water	03/18/10 13:50	03/19/10 10:10
4029585011	SWS-1	Water	03/18/10 14:15	03/19/10 10:10
4029585012	SWS-2	Water	03/18/10 14:35	03/19/10 10:10
4029585013	SWS-3	Water	03/18/10 15:50	03/19/10 10:10
4029585014	TRIP BLANK	Water	03/18/10 00:00	03/19/10 10:10

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4029585001	DP-3-2	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029585002	DP-3-1	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029585003	DP-2-1	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029585004	BW-105	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029585005	SW-4	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029585006	BW-2	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029585007	A-1	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029585008	A-2	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029585009	FBLK 10101	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029585010	RBLK 10101	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029585011	SWS-1	EPA 8260	SMT	20	PASI-G
4029585012	SWS-2	EPA 8260	SMT	20	PASI-G
4029585013	SWS-3	EPA 8260	SMT	20	PASI-G
4029585014	TRIP BLANK	EPA 8260	SMT	20	PASI-G

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

---

**Method:** EPA 6010  
**Description:** 6010 MET ICP, Dissolved  
**Client:** RMT - GREENVILLE  
**Date:** April 02, 2010

### General Information:

10 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

1 laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

---

**Method:** EPA 8260  
**Description:** 8260 MSV  
**Client:** RMT - GREENVILLE  
**Date:** April 02, 2010

**General Information:**

14 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

---

**Method:** EPA 300.0  
**Description:** 300.0 IC Anions 28 Days  
**Client:** RMT - GREENVILLE  
**Date:** April 02, 2010

### General Information:

10 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

Laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/6055

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 4029585001, 4029690001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 281191)
  - Sulfate
- MS (Lab ID: 281193)
  - Chloride
- MSD (Lab ID: 281192)
  - Sulfate
- MSD (Lab ID: 281194)
  - Chloride

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Sample: DP-3-2		Lab ID: 4029585001	Collected: 03/15/10 13:20	Received: 03/19/10 10:10	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	3380	ug/L	5.0	0.12	1		03/30/10 18:58	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	50.0	12.5	2.5		03/22/10 16:52	67-64-1	
Benzene	ND	ug/L	2.5	1.0	2.5		03/22/10 16:52	71-43-2	
2-Butanone (MEK)	ND	ug/L	50.0	10.8	2.5		03/22/10 16:52	78-93-3	
Chloroethane	ND	ug/L	2.5	2.4	2.5		03/22/10 16:52	75-00-3	
Chloroform	ND	ug/L	12.5	3.2	2.5		03/22/10 16:52	67-66-3	
Chloromethane	ND	ug/L	2.5	0.60	2.5		03/22/10 16:52	74-87-3	
1,1-Dichloroethane	2.0J	ug/L	2.5	1.9	2.5		03/22/10 16:52	75-34-3	
1,2-Dichloroethane	142	ug/L	2.5	0.90	2.5		03/22/10 16:52	107-06-2	
1,1-Dichloroethene	4.3	ug/L	2.5	1.4	2.5		03/22/10 16:52	75-35-4	
cis-1,2-Dichloroethene	264	ug/L	2.5	2.1	2.5		03/22/10 16:52	156-59-2	
trans-1,2-Dichloroethene	17.0	ug/L	2.5	2.2	2.5		03/22/10 16:52	156-60-5	
Methylene Chloride	1.2J	ug/L	2.5	1.1	2.5		03/22/10 16:52	75-09-2	Z3
Tetrachloroethene	ND	ug/L	2.5	1.1	2.5		03/22/10 16:52	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	2.5	2.2	2.5		03/22/10 16:52	71-55-6	
1,1,2-Trichloroethane	8.4	ug/L	2.5	1.0	2.5		03/22/10 16:52	79-00-5	
Trichloroethene	4.1	ug/L	2.5	1.2	2.5		03/22/10 16:52	79-01-6	
Vinyl chloride	147	ug/L	2.5	0.45	2.5		03/22/10 16:52	75-01-4	
4-Bromofluorobenzene (S)	93	%-	70-130		2.5		03/22/10 16:52	460-00-4	
Dibromofluoromethane (S)	93	%-	70-130		2.5		03/22/10 16:52	1868-53-7	
Toluene-d8 (S)	96	%-	70-130		2.5		03/22/10 16:52	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	3.5J	mg/L	4.0	2.0	1		03/31/10 23:13	14808-79-8	M0



## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Sample: DP-3-1		Lab ID: 4029585002	Collected: 03/15/10 18:20	Received: 03/19/10 10:10	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS.No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	2700	ug/L	5.0	0.12	1		03/30/10 19:02	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/22/10 15:42	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/22/10 15:42	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/22/10 15:42	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/22/10 15:42	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/22/10 15:42	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/22/10 15:42	74-87-3	
1,1-Dichloroethane	2.1	ug/L	1.0	0.75	1		03/22/10 15:42	75-34-3	
1,2-Dichloroethane	13.3	ug/L	1.0	0.36	1		03/22/10 15:42	107-06-2	
1,1-Dichloroethene	0.64J	ug/L	1.0	0.57	1		03/22/10 15:42	75-35-4	
cis-1,2-Dichloroethene	17.8	ug/L	1.0	0.83	1		03/22/10 15:42	156-59-2	
trans-1,2-Dichloroethene	2.0	ug/L	1.0	0.89	1		03/22/10 15:42	156-60-5	
Methylene Chloride	0.47J	ug/L	1.0	0.43	1		03/22/10 15:42	75-09-2	Z3
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/22/10 15:42	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/22/10 15:42	71-55-6	
1,1,2-Trichloroethane	1.3	ug/L	1.0	0.42	1		03/22/10 15:42	79-00-5	
1,1,2-Trichloroethene	0.62J	ug/L	1.0	0.48	1		03/22/10 15:42	79-01-6	
Vinylchloride	32.3	ug/L	1.0	0.18	1		03/22/10 15:42	75-01-4	
4-Bromofluorobenzene (S)	92	%-	70-130		1		03/22/10 15:42	460-00-4	
Dibromofluoromethane (S)	91	%-	70-130		1		03/22/10 15:42	1868-53-7	
Toluene-d8 (S)	94	%-	70-130		1		03/22/10 15:42	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	3.2J	mg/L	4.0	2.0	1		04/01/10 00:14	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Sample: DP-2-1 Lab ID: 4029585003 Collected: 03/16/10 11:40 Received: 03/19/10 10:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	1990	ug/L	5.0	0.12	1		03/30/10 19:06	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	80.0	20.0	4		03/22/10 17:16	67-64-1	
Benzene	ND	ug/L	4.0	1.6	4		03/22/10 17:16	71-43-2	
2-Butanone (MEK)	ND	ug/L	80.0	17.2	4		03/22/10 17:16	78-93-3	
Chloroethane	ND	ug/L	4.0	3.9	4		03/22/10 17:16	75-00-3	
Chloroform	ND	ug/L	20.0	5.2	4		03/22/10 17:16	67-66-3	
Chloromethane	ND	ug/L	4.0	0.96	4		03/22/10 17:16	74-87-3	
1,1-Dichloroethane	ND	ug/L	4.0	3.0	4		03/22/10 17:16	75-34-3	
1,2-Dichloroethane	2.3J	ug/L	4.0	1.4	4		03/22/10 17:16	107-06-2	
1,1-Dichloroethene	ND	ug/L	4.0	2.3	4		03/22/10 17:16	75-35-4	
cis-1,2-Dichloroethene	57.5	ug/L	4.0	3.3	4		03/22/10 17:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	4.0	3.6	4		03/22/10 17:16	156-60-5	
Methylene Chloride	2.0J	ug/L	4.0	1.7	4		03/22/10 17:16	75-09-2	Z3
Tetrachloroethene	196	ug/L	4.0	1.8	4		03/22/10 17:16	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	4.0	3.6	4		03/22/10 17:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	4.0	1.7	4		03/22/10 17:16	79-00-5	
1,1,2,2-Tetrachloroethane	79.0	ug/L	4.0	1.9	4		03/22/10 17:16	79-01-6	
Vinyl chloride	12.3	ug/L	4.0	0.72	4		03/22/10 17:16	75-01-4	
4-Bromofluorobenzene (S)	91	%-	70-130		4		03/22/10 17:16	460-00-4	
Dibromofluoromethane (S)	91	%-	70-130		4		03/22/10 17:16	1868-53-7	
Toluene-d8 (S)	96	%-	70-130		4		03/22/10 17:16	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	7.9	mg/L	4.0	2.0	1		04/01/10 00:26	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Sample: BW-105 Lab ID: 4029585004 Collected: 03/16/10 14:45 Received: 03/19/10 10:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	4.5J	ug/L	5.0	0.12	1		03/30/10 19:18	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/22/10 13:22	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/22/10 13:22	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/22/10 13:22	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/22/10 13:22	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/22/10 13:22	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/22/10 13:22	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/22/10 13:22	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/22/10 13:22	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/22/10 13:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/22/10 13:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/22/10 13:22	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/22/10 13:22	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/22/10 13:22	127-18-4	
1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/22/10 13:22	71-55-6	
1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/22/10 13:22	79-00-5	
1,1,2-Trichloroethene	ND	ug/L	1.0	0.48	1		03/22/10 13:22	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/22/10 13:22	75-01-4	
4-Bromofluorobenzene (S)	92	%-	70-130		1		03/22/10 13:22	460-00-4	
Dibromofluoromethane (S)	91	%-	70-130		1		03/22/10 13:22	1868-53-7	
Toluene-d8 (S)	96	%-	70-130		1		03/22/10 13:22	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	2.0J	mg/L	4.0	2.0	1		04/01/10 00:38	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Sample: SW-4		Lab ID: 4029585005	Collected: 03/16/10 15:20	Received: 03/19/10 10:10	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved		Analytical Method: EPA 6010							
Manganese, Dissolved	325 ug/L		5.0	0.12	1		03/30/10 19:34	7439-96-5	
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L		20.0	5.0	1		03/22/10 16:06	67-64-1	
Benzene	ND ug/L		1.0	0.41	1		03/22/10 16:06	71-43-2	
2-Butanone (MEK)	ND ug/L		20.0	4.3	1		03/22/10 16:06	78-93-3	
Chloroethane	ND ug/L		1.0	0.97	1		03/22/10 16:06	75-00-3	
Chloroform	8.1 ug/L		5.0	1.3	1		03/22/10 16:06	67-66-3	
Chloromethane	ND ug/L		1.0	0.24	1		03/22/10 16:06	74-87-3	
1,1-Dichloroethane	1.2 ug/L		1.0	0.75	1		03/22/10 16:06	75-34-3	
1,2-Dichloroethane	0.65J ug/L		1.0	0.36	1		03/22/10 16:06	107-06-2	
1,1-Dichloroethene	16.3 ug/L		1.0	0.57	1		03/22/10 16:06	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		1.0	0.83	1		03/22/10 16:06	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		1.0	0.89	1		03/22/10 16:06	156-60-5	
Methylene Chloride	ND ug/L		1.0	0.43	1		03/22/10 16:06	75-09-2	
Tetrachloroethene	3.3 ug/L		1.0	0.45	1		03/22/10 16:06	127-18-4	
1,1-Trichloroethane	7.6 ug/L		1.0	0.90	1		03/22/10 16:06	71-55-6	
1,2-Trichloroethane	2.7 ug/L		1.0	0.42	1		03/22/10 16:06	79-00-5	
Trichloroethene	31.8 ug/L		1.0	0.48	1		03/22/10 16:06	79-01-6	
Vinyl chloride	ND ug/L		1.0	0.18	1		03/22/10 16:06	75-01-4	
4-Bromofluorobenzene (S)	92 %-		70-130		1		03/22/10 16:06	460-00-4	
Dibromofluoromethane (S)	93 %-		70-130		1		03/22/10 16:06	1868-53-7	
Toluene-d8 (S)	96 %-		70-130		1		03/22/10 16:06	2037-26-5	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	ND mg/L		4.0	2.0	1		04/01/10 00:51	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Sample: BW-2		Lab ID: 4029585006	Collected: 03/16/10 16:20	Received: 03/19/10 10:10	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved		Analytical Method: EPA 6010							
Manganese, Dissolved	3.8J	ug/L	5.0	0.12	1		03/30/10 19:46	7439-96-5	
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/22/10 13:45	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/22/10 13:45	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/22/10 13:45	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/22/10 13:45	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/22/10 13:45	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/22/10 13:45	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/22/10 13:45	75-34-3	
1,2-Dichloroethane	0.37J	ug/L	1.0	0.36	1		03/22/10 13:45	107-06-2	
1,1-Dichloroethene	1.1	ug/L	1.0	0.57	1		03/22/10 13:45	75-35-4	
cis-1,2-Dichloroethene	6.2	ug/L	1.0	0.83	1		03/22/10 13:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/22/10 13:45	156-60-5	
Methylene Chloride	0.44J	ug/L	1.0	0.43	1		03/22/10 13:45	75-09-2	Z3
Tetrachloroethene	6.8	ug/L	1.0	0.45	1		03/22/10 13:45	127-18-4	
1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/22/10 13:45	71-55-6	
1,2-Trichloroethane	0.84J	ug/L	1.0	0.42	1		03/22/10 13:45	79-00-5	
1,1,2-Trichloroethene	17.6	ug/L	1.0	0.48	1		03/22/10 13:45	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/22/10 13:45	75-01-4	
4-Bromofluorobenzene (S)	94	%-	70-130		1		03/22/10 13:45	460-00-4	
Dibromofluoromethane (S)	93	%-	70-130		1		03/22/10 13:45	1868-53-7	
Toluene-d8 (S)	96	%-	70-130		1		03/22/10 13:45	2037-26-5	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	2.8J	mg/L	4.0	2.0	1		04/01/10 01:03	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Sample: A-1		Lab ID: 4029585007	Collected: 03/17/10 15:20	Received: 03/19/10 10:10	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	4350	ug/L	5.0	0.12	1		03/30/10 19:50	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/22/10 16:29	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/22/10 16:29	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/22/10 16:29	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/22/10 16:29	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/22/10 16:29	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/22/10 16:29	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/22/10 16:29	75-34-3	
1,2-Dichloroethane	1.4	ug/L	1.0	0.36	1		03/22/10 16:29	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/22/10 16:29	75-35-4	
cis-1,2-Dichloroethene	6.7	ug/L	1.0	0.83	1		03/22/10 16:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/22/10 16:29	156-60-5	
Methylene Chloride	0.49J	ug/L	1.0	0.43	1		03/22/10 16:29	75-09-2	Z3
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/22/10 16:29	127-18-4	
1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/22/10 16:29	71-55-6	
1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/22/10 16:29	79-00-5	
Trichloroethene	1.0	ug/L	1.0	0.48	1		03/22/10 16:29	79-01-6	
Vinyl chloride	3.4	ug/L	1.0	0.18	1		03/22/10 16:29	75-01-4	
4-Bromofluorobenzene (S)	93	%-	70-130		1		03/22/10 16:29	460-00-4	
Dibromofluoromethane (S)	94	%-	70-130		1		03/22/10 16:29	1868-53-7	
Toluene-d8 (S)	96	%-	70-130		1		03/22/10 16:29	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	4.1	mg/L	4.0	2.0	1		04/01/10 01:15	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Sample: A-2 Lab ID: 4029585008 Collected: 03/18/10 13:00 Received: 03/19/10 10:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	4330	ug/L	5.0	0.12	1		03/30/10 19:54	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/22/10 14:08	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/22/10 14:08	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/22/10 14:08	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/22/10 14:08	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/22/10 14:08	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/22/10 14:08	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/22/10 14:08	75-34-3	
1,2-Dichloroethane	1.7	ug/L	1.0	0.36	1		03/22/10 14:08	107-06-2	
1,1-Dichloroethene	0.57J	ug/L	1.0	0.57	1		03/22/10 14:08	75-35-4	
cis-1,2-Dichloroethene	7.9	ug/L	1.0	0.83	1		03/22/10 14:08	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/22/10 14:08	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/22/10 14:08	75-09-2	
Tetrachloroethene	6.1	ug/L	1.0	0.45	1		03/22/10 14:08	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/22/10 14:08	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/22/10 14:08	79-00-5	
1,1,2,2-Tetrachloroethene	13.4	ug/L	1.0	0.48	1		03/22/10 14:08	79-01-6	
Vinyl chloride	6.4	ug/L	1.0	0.18	1		03/22/10 14:08	75-01-4	
4-Bromofluorobenzene (S)	92	%-	70-130		1		03/22/10 14:08	460-00-4	
Dibromofluoromethane (S)	92	%-	70-130		1		03/22/10 14:08	1868-53-7	
Toluene-d8 (S)	96	%-	70-130		1		03/22/10 14:08	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	4.4	mg/L	4.0	2.0	1		04/01/10 01:27	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace Project No.: 4029585

Sample: FBLK 10101 Lab ID: 4029585009 Collected: 03/18/10 12:20 Received: 03/19/10 10:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	0.12J	ug/L	5.0	0.12	1		03/30/10 20:06	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	5.0J	ug/L	20.0	5.0	1		03/22/10 10:38	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/22/10 10:38	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/22/10 10:38	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/22/10 10:38	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/22/10 10:38	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/22/10 10:38	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/22/10 10:38	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/22/10 10:38	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/22/10 10:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/22/10 10:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/22/10 10:38	156-60-5	
Methylene Chloride	0.58J	ug/L	1.0	0.43	1		03/22/10 10:38	75-09-2	Z3
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/22/10 10:38	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/22/10 10:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/22/10 10:38	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.48	1		03/22/10 10:38	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/22/10 10:38	75-01-4	
4-Bromofluorobenzene (S)	91	%-	70-130		1		03/22/10 10:38	460-00-4	
Dibromofluoromethane (S)	93	%-	70-130		1		03/22/10 10:38	1868-53-7	
Toluene-d8 (S)	97	%-	70-130		1		03/22/10 10:38	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	ND	mg/L	4.0	2.0	1		04/01/10 01:39	14808-79-8	



## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Sample: RBLK 10101		Lab ID: 4029585010	Collected: 03/18/10 13:50	Received: 03/19/10 10:10	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	2.6J	ug/L	5.0	0.12	1		03/30/10 20:10	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/22/10 11:01	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/22/10 11:01	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/22/10 11:01	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/22/10 11:01	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/22/10 11:01	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/22/10 11:01	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/22/10 11:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/22/10 11:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/22/10 11:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/22/10 11:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/22/10 11:01	156-60-5	
Methylene Chloride	0.62J	ug/L	1.0	0.43	1		03/22/10 11:01	75-09-2	Z3
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/22/10 11:01	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/22/10 11:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/22/10 11:01	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.48	1		03/22/10 11:01	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/22/10 11:01	75-01-4	
4-Bromofluorobenzene (S)	92	%-	70-130		1		03/22/10 11:01	460-00-4	
Dibromofluoromethane (S)	90	%-	70-130		1		03/22/10 11:01	1868-53-7	
Toluene-d8 (S)	96	%-	70-130		1		03/22/10 11:01	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	ND	mg/L	4.0	2.0	1		04/01/10 01:51	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Sample: SWS-1 Lab ID: 4029585011 Collected: 03/18/10 14:15 Received: 03/19/10 10:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/22/10 14:32	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/22/10 14:32	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/22/10 14:32	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/22/10 14:32	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/22/10 14:32	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/22/10 14:32	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/22/10 14:32	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/22/10 14:32	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/22/10 14:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/22/10 14:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/22/10 14:32	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/22/10 14:32	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/22/10 14:32	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/22/10 14:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/22/10 14:32	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.48	1		03/22/10 14:32	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/22/10 14:32	75-01-4	
Bromofluorobenzene (S)	92	%-	70-130		1		03/22/10 14:32	460-00-4	
Bromofluoromethane (S)	92	%-	70-130		1		03/22/10 14:32	1868-53-7	
Toluene-d8 (S)	97	%-	70-130		1		03/22/10 14:32	2037-26-5	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Sample: SWS-2 Lab ID: 4029585012 Collected: 03/18/10 14:35 Received: 03/19/10 10:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/22/10 14:55	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/22/10 14:55	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/22/10 14:55	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/22/10 14:55	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/22/10 14:55	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/22/10 14:55	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/22/10 14:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/22/10 14:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/22/10 14:55	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/22/10 14:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/22/10 14:55	156-60-5	
Methylene Chloride	0.45J	ug/L	1.0	0.43	1		03/22/10 14:55	75-09-2	Z3
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/22/10 14:55	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/22/10 14:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/22/10 14:55	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.48	1		03/22/10 14:55	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/22/10 14:55	75-01-4	
Bromofluorobenzene (S)	90	%-	70-130		1		03/22/10 14:55	460-00-4	
Bromofluoromethane (S)	92	%-	70-130		1		03/22/10 14:55	1868-53-7	
Toluene-d8 (S)	95	%-	70-130		1		03/22/10 14:55	2037-26-5	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Sample: SWS-3 Lab ID: 4029585013 Collected: 03/18/10 15:50 Received: 03/19/10 10:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/22/10 15:19	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/22/10 15:19	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/22/10 15:19	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/22/10 15:19	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/22/10 15:19	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/22/10 15:19	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/22/10 15:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/22/10 15:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/22/10 15:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/22/10 15:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/22/10 15:19	156-60-5	
Methylene Chloride	0.49J	ug/L	1.0	0.43	1		03/22/10 15:19	75-09-2	Z3
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/22/10 15:19	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/22/10 15:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/22/10 15:19	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.48	1		03/22/10 15:19	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/22/10 15:19	75-01-4	
Bromofluorobenzene (S)	93	%-	70-130		1		03/22/10 15:19	460-00-4	
Bromofluoromethane (S)	91	%-	70-130		1		03/22/10 15:19	1868-53-7	
Toluene-d8 (S)	95	%-	70-130		1		03/22/10 15:19	2037-26-5	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Sample: TRIP BLANK Lab ID: 4029585014 Collected: 03/18/10 00:00 Received: 03/19/10 10:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/22/10 10:14	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/22/10 10:14	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/22/10 10:14	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/22/10 10:14	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/22/10 10:14	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/22/10 10:14	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/22/10 10:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/22/10 10:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/22/10 10:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/22/10 10:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/22/10 10:14	156-60-5	
Methylene Chloride	0.49J	ug/L	1.0	0.43	1		03/22/10 10:14	75-09-2	Z3
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/22/10 10:14	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/22/10 10:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/22/10 10:14	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.48	1		03/22/10 10:14	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/22/10 10:14	75-01-4	
Bromofluorobenzene (S)	95	%-	70-130		1		03/22/10 10:14	460-00-4	
Bromofluoromethane (S)	90	%-	70-130		1		03/22/10 10:14	1868-53-7	
Toluene-d8 (S)	98	%-	70-130		1		03/22/10 10:14	2037-26-5	

## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

QC Batch: ICP/3250 Analysis Method: EPA 6010  
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved  
Associated Lab Samples: 4029585001, 4029585002, 4029585003, 4029585004

METHOD BLANK: 280692 Matrix: Water  
Associated Lab Samples: 4029585001, 4029585002, 4029585003, 4029585004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	5.0	03/30/10 17:20	

LABORATORY CONTROL SAMPLE: 280693

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	500	480	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 280694 280695

Parameter	Units	4029745011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Manganese, Dissolved	ug/L	2020	500	500	2460	2470	88	90	75-125	.4	20

## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

QC Batch: ICP/3251 Analysis Method: EPA 6010  
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved  
Associated Lab Samples: 4029585005, 4029585006, 4029585007, 4029585008, 4029585009, 4029585010

METHOD BLANK: 280696 Matrix: Water  
Associated Lab Samples: 4029585005, 4029585006, 4029585007, 4029585008, 4029585009, 4029585010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	5.0	03/30/10 19:26	

LABORATORY CONTROL SAMPLE: 280697

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	500	465	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 280698 280699

Parameter	Units	4029585005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Manganese, Dissolved	ug/L	325	500	500	782	781	91	91	75-125	.2	20

## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

QC Batch: MSV/7257 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
Associated Lab Samples: 4029585001, 4029585002, 4029585003, 4029585004, 4029585005, 4029585006, 4029585007, 4029585008, 4029585009, 4029585010, 4029585011, 4029585012, 4029585013, 4029585014

METHOD BLANK: 277395 Matrix: Water  
Associated Lab Samples: 4029585001, 4029585002, 4029585003, 4029585004, 4029585005, 4029585006, 4029585007, 4029585008, 4029585009, 4029585010, 4029585011, 4029585012, 4029585013, 4029585014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	03/22/10 07:50	
1,1,2-Trichloroethane	ug/L	ND	1.0	03/22/10 07:50	
1,1-Dichloroethane	ug/L	ND	1.0	03/22/10 07:50	
1,1-Dichloroethene	ug/L	ND	1.0	03/22/10 07:50	
1,2-Dichloroethane	ug/L	ND	1.0	03/22/10 07:50	
2-Butanone (MEK)	ug/L	ND	20.0	03/22/10 07:50	
Acetone	ug/L	ND	20.0	03/22/10 07:50	
Benzene	ug/L	ND	1.0	03/22/10 07:50	
Chloroethane	ug/L	ND	1.0	03/22/10 07:50	
Chloroform	ug/L	ND	5.0	03/22/10 07:50	
Chloromethane	ug/L	ND	1.0	03/22/10 07:50	
cis-1,2-Dichloroethene	ug/L	ND	1.0	03/22/10 07:50	
ethylene Chloride	ug/L	ND	1.0	03/22/10 07:50	
tetrachloroethene	ug/L	ND	1.0	03/22/10 07:50	
trans-1,2-Dichloroethene	ug/L	ND	1.0	03/22/10 07:50	
Trichloroethene	ug/L	ND	1.0	03/22/10 07:50	
Vinyl chloride	ug/L	ND	1.0	03/22/10 07:50	
4-Bromofluorobenzene (S)	%-	92	70-130	03/22/10 07:50	
Dibromofluoromethane (S)	%-	93	70-130	03/22/10 07:50	
Toluene-d8 (S)	%-	97	70-130	03/22/10 07:50	

LABORATORY CONTROL SAMPLE & LCSD: 277396

277397

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	49.7	49.6	99	99	70-132	.2	20	
1,1,2-Trichloroethane	ug/L	50	46.6	45.7	93	91	70-130	2	20	
1,1-Dichloroethane	ug/L	50	47.7	47.3	95	95	70-130	1	20	
1,1-Dichloroethene	ug/L	50	54.1	53.1	108	106	70-130	2	20	
1,2-Dichloroethane	ug/L	50	45.5	44.8	91	90	70-134	2	20	
2-Butanone (MEK)	ug/L	50	47.5	42.9	95	86	36-181	10	35	
Acetone	ug/L	50	68.0	57.9	136	116	10-200	16	36	
Benzene	ug/L	50	49.8	48.5	100	97	70-131	3	20	
Chloroethane	ug/L	50	52.6	52.2	105	104	70-136	.7	20	
Chloroform	ug/L	50	47.1	47.2	94	94	70-130	.1	20	
Chloromethane	ug/L	50	46.0	42.6	92	85	54-148	8	20	
cis-1,2-Dichloroethene	ug/L	50	50.4	49.3	101	99	70-130	2	20	
Methylene Chloride	ug/L	50	52.6	51.6	105	103	66-130	2	20	
Tetrachloroethene	ug/L	50	53.4	53.0	107	106	75-130	.7	20	
trans-1,2-Dichloroethene	ug/L	50	52.2	51.8	104	104	70-130	.7	20	
Trichloroethene	ug/L	50	52.6	51.5	105	103	70-130	2	20	

Date: 04/02/2010 02:54 PM

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

LABORATORY CONTROL SAMPLE & LCSD: 277396			277397							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Vinyl chloride	ug/L	50	44.9	43.4	90	87	63-141	3	20	
4-Bromofluorobenzene (S)	%-				94	93	70-130			
Dibromofluoromethane (S)	%-				93	93	70-130			
Toluene-d8 (S)	%-				98	97	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 277434			277435									
Parameter	Units	4029580011	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result										
1,1,1-Trichloroethane	ug/L	<0.90	50	50	48.9	48.5	98	97	70-137	.9	20	
1,1,2-Trichloroethane	ug/L	<0.42	50	50	45.2	45.7	90	91	70-130	1	20	
1,1-Dichloroethane	ug/L	<0.75	50	50	47.0	46.7	94	93	70-130	.7	20	
1,1-Dichloroethene	ug/L	<0.57	50	50	51.3	50.6	103	101	70-130	1	20	
1,2-Dichloroethane	ug/L	<0.36	50	50	44.9	45.1	90	90	69-134	.3	20	
2-Butanone (MEK)	ug/L	<4.3	50	50	37.2	35.0	74	70	36-181	6	35	
Acetone	ug/L	<5.0	50	50	37.6	39.9	75	80	10-200	6	36	
Benzene	ug/L	<0.41	50	50	49.0	48.8	98	98	69-131	.3	20	
Chloroethane	ug/L	<0.97	50	50	51.2	49.5	102	99	66-136	3	20	
Chloroform	ug/L	<1.3	50	50	46.6	46.7	93	93	70-130	.3	20	
Chloromethane	ug/L	<0.24	50	50	41.7	40.7	83	81	54-148	2	20	
cis-1,2-Dichloroethene	ug/L	<0.83	50	50	49.4	49.6	99	99	70-130	.4	20	
Methylene Chloride	ug/L	0.50J	50	50	51.6	51.3	102	102	64-130	.7	20	
Tetrachloroethene	ug/L	<0.45	50	50	52.1	52.5	104	105	70-130	.8	20	
trans-1,2-Dichloroethene	ug/L	<0.89	50	50	50.3	49.9	101	100	70-130	.9	20	
Trichloroethene	ug/L	<0.48	50	50	51.0	50.8	102	102	70-130	.4	20	
Vinyl chloride	ug/L	<0.18	50	50	41.5	41.5	83	83	59-141	.1	20	
4-Bromofluorobenzene (S)	%-						94	92	70-130			
Dibromofluoromethane (S)	%-						94	93	70-130			
Toluene-d8 (S)	%-						96	97	70-130			

### QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

QC Batch: WETA/6055 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 4029585001, 4029585002, 4029585003, 4029585004, 4029585005, 4029585006, 4029585007, 4029585008, 4029585009, 4029585010

METHOD BLANK: 281189 Matrix: Water  
Associated Lab Samples: 4029585001, 4029585002, 4029585003, 4029585004, 4029585005, 4029585006, 4029585007, 4029585008, 4029585009, 4029585010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	4.0	03/31/10 22:49	

LABORATORY CONTROL SAMPLE: 281190

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	18.8	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 281191 281192

Parameter	Units	4029585001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Sulfate	mg/L	3.5J	20	20	21.0	21.1	87	88	90-110	.6 20	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 281193 281194

Parameter	Units	4029690001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Sulfate	mg/L		20	20	70.9	70.6	105	104	90-110	.3 20	

## QUALIFIERS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

Z3 Methylene chloride is a common laboratory contaminant. Results for this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029585

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4029585001	DP-3-2	EPA 6010	ICP/3250		
4029585002	DP-3-1	EPA 6010	ICP/3250		
4029585003	DP-2-1	EPA 6010	ICP/3250		
4029585004	BW-105	EPA 6010	ICP/3250		
4029585005	SW-4	EPA 6010	ICP/3251		
4029585006	BW-2	EPA 6010	ICP/3251		
4029585007	A-1	EPA 6010	ICP/3251		
4029585008	A-2	EPA 6010	ICP/3251		
4029585009	FBLK 10101	EPA 6010	ICP/3251		
4029585010	RBLK 10101	EPA 6010	ICP/3251		
4029585001	DP-3-2	EPA 8260	MSV/7257		
4029585002	DP-3-1	EPA 8260	MSV/7257		
4029585003	DP-2-1	EPA 8260	MSV/7257		
4029585004	BW-105	EPA 8260	MSV/7257		
4029585005	SW-4	EPA 8260	MSV/7257		
4029585006	BW-2	EPA 8260	MSV/7257		
4029585007	A-1	EPA 8260	MSV/7257		
4029585008	A-2	EPA 8260	MSV/7257		
4029585009	FBLK 10101	EPA 8260	MSV/7257		
29585010	RBLK 10101	EPA 8260	MSV/7257		
J29585011	SWS-1	EPA 8260	MSV/7257		
4029585012	SWS-2	EPA 8260	MSV/7257		
4029585013	SWS-3	EPA 8260	MSV/7257		
4029585014	TRIP BLANK	EPA 8260	MSV/7257		
4029585001	DP-3-2	EPA 300.0	WETA/6055		
4029585002	DP-3-1	EPA 300.0	WETA/6055		
4029585003	DP-2-1	EPA 300.0	WETA/6055		
4029585004	BW-105	EPA 300.0	WETA/6055		
4029585005	SW-4	EPA 300.0	WETA/6055		
4029585006	BW-2	EPA 300.0	WETA/6055		
4029585007	A-1	EPA 300.0	WETA/6055		
4029585008	A-2	EPA 300.0	WETA/6055		
4029585009	FBLK 10101	EPA 300.0	WETA/6055		
4029585010	RBLK 10101	EPA 300.0	WETA/6055		



## CHAIN OF CUSTODY RECORD

30 Patewood Drive, Suite 100, Patewood Plaza One, Greenville, SC 29615-3535  
Phone 864/281-0030 • Fax 864/281-0288

KM

4029585

Project No. 71243.61		Project/Client Medley Farms		Total Number of Containers	MATRIX	Analyses Requested										Comments:		
Project Manager/Contact Person: S. Webb. / L. Clark		Preserved (Code)																
Lab No.	Yr. _____ Date	Time	Sample Station ID			PRESERVED CODES A — NONE B — HNO <sub>3</sub> C — H <sub>2</sub> SO <sub>4</sub> D — NaOH E — HCl F — METHANOL G — _____												
001	3/15	1320	DP-3-2	5	GW	3	1	1									0-250ml AD	3-40ml B
002	3/15	1420	DP-3-1	5		3	1	1										
003	3/16	1140	DP-2-1	5		3	1	1										
004		1445	BW-105	5		3	1	1										
005		1520	SW-4	5		3	1	1										
006	3/16	1620	BW-2	5	GW	3	1	1										
007	3/17	1520	A-1	5	GW	3	1	1										
008	3/18	1300	A-2	5	GW	3	1	1										
009	3/18	1220	FBLK 10101	5	GF	3	1	1										
010	3/18	1350	RBLK 10101	5	GF	3	1	1										
SPECIAL INSTRUCTIONS																		
8712 6041 8557																		
SAMPLER Relinquished by (Signature) _____ Date/Time 3/18/10 1700			Received by (Signature) FED EX Date/Time 3/18/10 1700			HAZARDS ASSOCIATED WITH SAMPLES <input type="checkbox"/> Flammable <input type="checkbox"/> Corrosive <input type="checkbox"/> Highly Toxic <input type="checkbox"/> Other (list) _____			Turn Around (circle one) Normal Rush									
Relinquished by (Signature) FLETCH Date/Time 3/19/10 1010			Received by (Signature) [Signature] Date/Time 3/19/10 1010						Report Due _____									
Relinquished by (Signature) _____ Date/Time _____			Received by (Signature) _____ Date/Time _____						(For Lab Use Only) Receipt Temp: _____ Receipt pH (Wet/ Metals) _____ Temp Blank Y <input checked="" type="checkbox"/> OK									
Custody Seal: Present/Absent Intact/Not Intact Seal #s																		





Pace Analytical Services, Inc.  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302

## Sample Condition Upon Receipt

Client Name: PMT Project # 4029585

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other \_\_\_\_\_

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None Other \_\_\_\_\_

Thermometer Used 90

Type of Ice: ☒ Wet ☐ Blue ☐ Dry ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temperature 30

Biological Tissue is Frozen: ☐ yes

Temp Blank Present: ☐ yes ☒ no

☐ no

Temp should be above freezing to 6°C for all sample except Biota.

Biota Samples should be received ≤ 0°C.

Comments:

Person examining contents:

Date: 3/19/10

Initials: AE

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Trace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. -013 labeled as -011. All times/dates match w/COC. AE 3/19/10
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <u>AE</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review:

Date: 3/19/10

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

Page: Page 1 of 13  
Lab Proj #: P1003239  
Report Date: 04/05/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

### Laboratory Results

Total pages in data package: 15

<u>Lab Sample #</u>	<u>Client Sample ID</u>
P1003239-01	DP3-2
P1003239-02	DP3-1
P1003239-03	DP2-1
P1003239-04	BW-105
P1003239-05	SW-4
P1003239-06	BW-2
P1003239-07	A-1
P1003239-08	A-2
P1003239-09	FBLK 10101
P1003239-10	RBLK 10101

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

**Approved By:** Debbie Hallo (HH) **Date:** 4.5.10

**Project Manager:** Debbie Hallo

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

*As a valued client we would appreciate your comments on our service.  
Please call customer service at (412)826-5245 or email customerservice@microseeps.com.*



TEMP-OK; CoE - signed; NARR-NA; HT-OK

MBLK - CLEAN

'BLK-10101 - CLEAN

FBLK-10101 - CLEAN

LCS - RECS OK

MS/MSD - BW-105 USED FOR MS/MSD; RECS AND RPDs OK



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Page: Page 1 of 13  
Lab Proj #: P1003239  
Report Date: 04/05/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

### Laboratory Results

Total pages in data package: 15

Lab Sample #	Client Sample ID
P1003239-01	DP3-2
P1003239-02	DP3-1
P1003239-03	DP2-1
P1003239-04	BW-105
P1003239-05	SW-4
P1003239-06	BW-2
P1003239-07	A-1
P1003239-08	A-2
P1003239-09	FBLK 10101
P1003239-10	RBLK 10101

NO FLAGS 927 4/5/10

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By: Debbie Hallo (HH) Date: 4.5.10

Project Manager: Debbie Hallo

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

As a valued client we would appreciate your comments on our service.  
Please call customer service at (412)826-5245 or email [customerservice@microseeps.com](mailto:customerservice@microseeps.com).

Client Name: RMT, Inc.  
Contact: Steve Webb  
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Page: Page 2 of 13  
Lab Proj #: P1003239  
Report Date: 04/05/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

Case Narrative:



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
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Page: Page 3 of 13  
 Lab Proj #: P1003239  
 Report Date: 04/05/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>		<u>Received</u>		
DP3-2	Water	P1003239-01	15 Mar. 10 13:20		19 Mar. 10 13:02		
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Butyric Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Lactic Acid	U	< 25.0	25	mg/L	AM21G	4/2/10	td
N Propionic Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Pyruvic Acid	U	< 10.0	10	mg/L	AM21G	4/2/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAM/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

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 Contact: Steve Webb  
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 Greenville, SC 29615-3535

Page: Page 4 of 13  
 Lab Proj #: P1003239  
 Report Date: 04/05/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
DP3-1	Water	P1003239-02	15 Mar. 10 18:20	19 Mar. 10 13:02			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	ld
N Butyric Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Lactic Acid	U	< 25.0	25	mg/L	AM21G	4/2/10	td
N Propionic Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Pyruvic Acid	U	< 10.0	10	mg/L	AM21G	4/2/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

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Page: Page 5 of 13  
Lab Proj #: P1003239  
Report Date: 04/05/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>			<u>Sampled Date/Time</u>	<u>Received</u>	
DP2-1	Water	P1003239-03			16 Mar. 10 11:40	19 Mar. 10 13:02	
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Butyric Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Lactic Acid	U	< 25.0	25	mg/L	AM21G	4/2/10	td
N Propionic Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Pyruvic Acid	U	< 10.0	10	mg/L	AM21G	4/2/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

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 Contact: Steve Webb  
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Page: Page 6 of 13  
 Lab Proj #: P1003239  
 Report Date: 04/05/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
BW-105	Water	P1003239-04	16 Mar. 10 14:45	19 Mar. 10 13:02			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Butyric Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Lactic Acid	U	< 25.0	25	mg/l.	AM21G	4/2/10	td
N Propionic Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Pyruvic Acid	U	< 10.0	10	mg/L	AM21G	4/2/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

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Page: Page 7 of 13  
 Lab Proj #: P1003239  
 Report Date: 04/05/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
SW-4	Water	P1003239-05	16 Mar. 10 15:20	19 Mar. 10 13:02			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Butyric Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Lactic Acid	U	< 25.0	25	mg/L	AM21G	4/2/10	td
N Propionic Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Pyruvic Acid	U	< 10.0	10	mg/L	AM21G	4/2/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
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Page: Page 8 of 13  
Lab Proj #: P1003239  
Report Date: 04/05/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
BW-2	Water	P1003239-06	16 Mar. 10 16:20	19 Mar. 10 13:02			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Butyric Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Lactic Acid	U	< 25.0	25	mg/L	AM21G	4/2/10	td
N Propionic Acid		1.3	1.0	mg/L	AM21G	4/2/10	td
N Pyruvic Acid	U	< 10.0	10	mg/L	AM21G	4/2/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis



Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
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 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 9 of 13  
 Lab Proj #: P1003239  
 Report Date: 04/05/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
A-1	Water	P1003239-07	17 Mar. 10 15:20	19 Mar. 10 13:02			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid		4.5	1.0	mg/L	AM21G	4/2/10	td
N Butyric Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Lactic Acid	U	< 25.0	25	mg/L	AM21G	4/2/10	td
N Propionic Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Pyruvic Acid	U	< 10.0	10	mg/L	AM21G	4/2/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

Page: Page 10 of 13  
Lab Proj #: P1003239  
Report Date: 04/05/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
A-2	Water	P1003239-08	18 Mar. 10 13:00	19 Mar. 10 13:02			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Butyric Acid	U	< 1.0	1	mg/L	AM21G	4/2/10	td
N Lactic Acid	U	< 25.0	25	mg/L	AM21G	4/2/10	td
N Propionic Acid	J	0.4	1.0	mg/L	AM21G	4/2/10	td
N Pyruvic Acid	U	< 10.0	10	mg/L	AM21G	4/2/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

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Page: Page 11 of 13  
 Lab Proj #: P1003239  
 Report Date: 04/05/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
FBLK 10101	Water	P1003239-09	18 Mar. 10 12:20	19 Mar. 10 13:02			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1	mg/L	AM21G	4/3/10	td
N Butyric Acid	U	< 1.0	1	mg/L	AM21G	4/3/10	td
N Lactic Acid	U	< 25.0	25	mg/L	AM21G	4/3/10	td
N Propionic Acid	U	< 1.0	1	mg/L	AM21G	4/3/10	td
N Pyruvic Acid	U	< 10.0	10	mg/L	AM21G	4/3/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

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Page: Page 12 of 13  
 Lab Proj #: P1003239  
 Report Date: 04/05/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
RBLK 10101	Water	P1003239-10	18 Mar. 10 13:50	19 Mar. 10 13:02			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1	mg/L	AM21G	4/3/10	td
N Butyric Acid	U	< 1.0	1	mg/L	AM21G	4/3/10	td
N Lactic Acid	U	< 25.0	25	mg/L	AM21G	4/3/10	td
N Propionic Acid	U	< 1.0	1	mg/L	AM21G	4/3/10	td
N Pyruvic Acid	U	< 10.0	10	mg/L	AM21G	4/3/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 13 of 13  
 Lab Proj #: P1003239  
 Report Date: 04/05/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

**Prep Method:** Analysis of Volatile Fatty Acids in Water  
**Analysis Method:** Analysis of Volatile Fatty Acids in Water

**M100403001-MB**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>RDL</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	< 1.0 mg/L		1.0		- NA
Propionic Acid	< 1.0 mg/L		1.0		- NA
Butyric Acid	< 1.0 mg/L		1.0		- NA
Lactic Acid	< 25.0 mg/L		25.0		- NA
Pyruvic Acid	< 10.0 mg/L		10.0		- NA

**M100403001-LCS**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	120.0 mg/L	100.00	120.00	70 - 130
Propionic Acid	110.0 mg/L	100.00	110.00	70 - 130
Butyric Acid	100.0 mg/L	100.00	100.00	70 - 130
Lactic Acid	96.0 mg/L	100.00	96.00	70 - 130
Pyruvic Acid	92.0 mg/L	100.00	92.00	70 - 130

**P1003239-04A-MS**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	100.0 mg/L	100.00	100.00	70 - 130
Propionic Acid	100.0 mg/L	100.00	100.00	70 - 130
Butyric Acid	91.0 mg/L	100.00	91.00	70 - 130
Lactic Acid	99.0 mg/L	100.00	99.00	70 - 130
Pyruvic Acid	100.0 mg/L	100.00	100.00	70 - 130

**P1003239-04A-MSD**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>	<u>RPD</u>	<u>RPD Ctl Limits</u>
Acetic Acid	100.0 mg/L	100.00	100.00	70 - 130	0.00	0 - 20
Propionic Acid	100.0 mg/L	100.00	100.00	70 - 130	0.00	0 - 20
Butyric Acid	93.0 mg/L	100.00	93.00	70 - 130	2.17	0 - 20
Lactic Acid	110.0 mg/L	100.00	110.00	70 - 130	10.53	0 - 20
Pyruvic Acid	98.0 mg/L	100.00	98.00	70 - 130	2.02	0 - 20

Outlined Results indicate results outside of Control limits



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis



# Cooler Receipt Form

Client: RMT, Inc.

Client Code: RMTSC

LabProject #: P1003239

Project: Medley Farm

Cooler ID: 1

**A. Preliminary Examination Phase:**

Date cooler opened: 3/19/2010

Cooler opened by: dp

1. Was airbill Attached? N/A

Airbill #:

Carrier Name: FedEx

2. Custody Seals? N/A

How many? 0

Location:

Seal Name:

3. Seals intact? Yes

4. Screened for radiation? N/A

5. COC Attached? Yes

Properly Completed? Yes

Signed by employee? Yes

6. Project Identification from custody paper: Medley Farm

7. Preservative: Yes

Temperature: 4

Comments:

**B. Log-In Phase:** Samples Log-in Date: 3/19/2010 Log-in By: dp

1. Packing Type: Other

2. Were samples in separate bags? N/A

3. Were containers intact? Yes

Labels agree with COC? Yes

4. Number of bottles received: 20

Number of samples received: 10

5. Correct containers used? Yes

Correct preservatives added? N/A


6. Sufficient sample volume? Yes

7. Bubbles in VOA samples? N/A

8. Was Project manager called and status discussed? N/A

Comments:

Have designate person initial here to acknowledge receipt of cooler:

 Date: 3/19/10

April 09, 2010

Mark Bailey  
RMT Greenville  
30 Patewood Drive  
Suite 100, Patewood Plaza One  
Greenville, SC 296153535

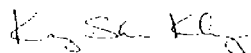
RE: Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

Dear Mark Bailey:

Enclosed are the analytical results for sample(s) received by the laboratory on March 26, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kang Khang

kang.khang@pacelabs.com  
Project Manager

Enclosures

## REPORT OF LABORATORY ANALYSIS

Page 1 of 29

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TEMP-OK; C<sub>6</sub>C- SIGNED; HT-OK; NARR-OK

SURR- RECS OK

MBLKS - CLEAN

TBLK-10103 - CLEAN

LCS/LCSD - RECS + RPDs OK

MS/MSD - Mn, DISS - 2 MS/MSD PAIRS. ONE PAIR WAS BATCH QC - RECS + RPD OK. SECOND PAIR USED SW-101 FOR MS/MSD - RECS + RPD OK.

-VOCs - SW-101 USED FOR MS/MSD - RECS + RPDs OK.

-SO<sub>4</sub> - TWO MS/MSD PAIRS. SECOND PAIR HAS HI MS REC BUT IS BATCH QC. NO FLAGS. FIRST MS/MSD PAIR USED BW-3 - RECS + RPDs OK.

Mark Bailey  
RMT Greenville  
30 Patewood Drive  
Suite 100, Patewood Plaza One  
Greenville, SC 296153535

RE: Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

Dear Mark Bailey:

Enclosed are the analytical results for sample(s) received by the laboratory on March 26, 2010. The RPDs results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. <10% EXCEPT FOR TWO

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

*Kang Khang*

Kang Khang

kang.khang@pacelabs.com  
Project Manager

NO FLAGS

*TJH* 4/12/10

VOCs WHICH HAD  
RPDs >10% BUT  
ABSOLUTE DIFFERENCES  
<0.5 ug/L. NO FLAGS

Enclosures

#### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

---

### Green Bay Certification IDs

California Certification #: 09268CA  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334  
New York Certification #: 11887

New York Certification #: 11888  
North Carolina Certification #: 503  
North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
Wisconsin Certification #: 405132750  
Wisconsin DATCP Certification #: 105-444  
1241 Bellevue Street Green Bay, WI 54302

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 71243.61 MEDLEY FARMS  
Pace Project No : 4029910

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4029910001	BW-4	Water	03/19/10 10:35	03/26/10 10:10
4029910002	BW-3	Water	03/19/10 12:40	03/26/10 10:10
4029910003	A-3	Water	03/22/10 14:30	03/26/10 10:10
4029910004	SW-201	Water	03/23/10 12:35	03/26/10 10:10
4029910005	A-4	Water	03/23/10 13:15	03/26/10 10:10
4029910006	SW-106	Water	03/23/10 15:40	03/26/10 10:10
4029910007	BW-106	Water	03/23/10 16:00	03/26/10 10:10
4029910008	SW-101	Water	03/24/10 10:30	03/26/10 10:10
4029910009	BW-201	Water	03/24/10 13:55	03/26/10 10:10
4029910010	A-5	Water	03/24/10 16:00	03/26/10 10:10
4029910011	SW-202	Water	03/25/10 13:40	03/26/10 10:10
4029910012	A-6	Water	03/25/10 15:10	03/26/10 10:10
4029910013	DU-10102	Water		03/26/10 10:10
4029910014	TBLK-10103	Water	03/19/10 00:00	03/26/10 10:10

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4029910001	BW-4	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029910002	BW-3	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029910003	A-3	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029910004	SW-201	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029910005	A-4	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029910006	SW-106	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029910007	BW-106	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029910008	SW-101	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029910009	BW-201	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029910010	A-5	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029910011	SW-202	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029910012	A-6	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4029910013	DU-10102	EPA 6010	DLB	1	PASI-G
		EPA 6010	DLB	1	PASI-G

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4029910014	TBLK-10103	EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
		EPA 8260	SMT	20	PASI-G

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

---

**Method:** EPA 6010  
**Description:** 6010 MET ICP, Dissolved  
**Client:** RMT - GREENVILLE  
**Date:** April 09, 2010

### General Information:

13 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

---

**Method:** EPA 8260  
**Description:** 8260 MSV  
**Client:** RMT - GREENVILLE  
**Date:** April 09, 2010

### General Information:

14 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Surrogates:

surrogates were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/7352

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 4029910008

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 280856)
  - Styrene
- MSD (Lab ID: 280857)
  - Styrene

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

---

**Method:** EPA 300.0  
**Description:** 300.0 IC Anions 28 Days  
**Client:** RMT - GREENVILLE  
**Date:** April 09, 2010

### General Information:

13 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

1 laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/6101

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 4029910002, 4030176001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 283766)
- Sulfate

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

Sample: BW-4		Lab ID: 4029910001	Collected: 03/19/10 10:35	Received: 03/26/10 10:10	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	0.72J	ug/L	5.0	0.12	1		03/31/10 06:55	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/31/10 10:39	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/31/10 10:39	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/31/10 10:39	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/31/10 10:39	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/31/10 10:39	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/31/10 10:39	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/31/10 10:39	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/31/10 10:39	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/31/10 10:39	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/31/10 10:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/31/10 10:39	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/31/10 10:39	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/31/10 10:39	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/31/10 10:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/31/10 10:39	79-00-5	
1,1,2-Trichloroethene	ND	ug/L	1.0	0.48	1		03/31/10 10:39	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/31/10 10:39	75-01-4	
4-Bromofluorobenzene (S)	80 %-		70-130		1		03/31/10 10:39	460-00-4	
Dibromofluoromethane (S)	84 %-		70-130		1		03/31/10 10:39	1868-53-7	
Toluene-d8 (S)	85 %-		70-130		1		03/31/10 10:39	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	8.3	mg/L	4.0	2.0	1		04/07/10 23:47	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace Project No.: 4029910

Sample: BW-3 Lab ID: 4029910002 Collected: 03/19/10 12:40 Received: 03/26/10 10:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	1.0J	ug/L	5.0	0.12	1		03/31/10 07:00	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/31/10 11:02	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/31/10 11:02	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/31/10 11:02	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/31/10 11:02	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/31/10 11:02	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/31/10 11:02	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/31/10 11:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/31/10 11:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/31/10 11:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/31/10 11:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/31/10 11:02	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/31/10 11:02	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/31/10 11:02	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/31/10 11:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/31/10 11:02	79-00-5	
1,1,2-Trichloroethene	ND	ug/L	1.0	0.48	1		03/31/10 11:02	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/31/10 11:02	75-01-4	
4-Bromofluorobenzene (S)	79	%-	70-130		1		03/31/10 11:02	460-00-4	
Dibromofluoromethane (S)	84	%-	70-130		1		03/31/10 11:02	1868-53-7	
Toluene-d8 (S)	85	%-	70-130		1		03/31/10 11:02	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	4.8	mg/L	4.0	2.0	1		04/08/10 00:24	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace Project No.: 4029910

Sample: A-3 Lab ID: 4029910003 Collected: 03/22/10 14:30 Received: 03/26/10 10:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	112	ug/L	5.0	0.12	1		03/31/10 07:04	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/31/10 14:32	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/31/10 14:32	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/31/10 14:32	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/31/10 14:32	75-00-3	
Chloroform	3.4J	ug/L	5.0	1.3	1		03/31/10 14:32	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/31/10 14:32	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/31/10 14:32	75-34-3	
1,2-Dichloroethane	0.76J	ug/L	1.0	0.36	1		03/31/10 14:32	107-06-2	
1,1-Dichloroethene	2.4	ug/L	1.0	0.57	1		03/31/10 14:32	75-35-4	
cis-1,2-Dichloroethene	9.5	ug/L	1.0	0.83	1		03/31/10 14:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/31/10 14:32	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/31/10 14:32	75-09-2	
Tetrachloroethene	14.4	ug/L	1.0	0.45	1		03/31/10 14:32	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/31/10 14:32	71-55-6	
1,1,2-Trichloroethane	1.8	ug/L	1.0	0.42	1		03/31/10 14:32	79-00-5	
1,1,2,2-Tetrachloroethane	28.0	ug/L	1.0	0.48	1		03/31/10 14:32	79-01-6	
Vinyl chloride	0.27J	ug/L	1.0	0.18	1		03/31/10 14:32	75-01-4	
4-Bromofluorobenzene (S)	80	%-	70-130		1		03/31/10 14:32	460-00-4	
Dibromofluoromethane (S)	82	%-	70-130		1		03/31/10 14:32	1868-53-7	
Toluene-d8 (S)	85	%-	70-130		1		03/31/10 14:32	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	3.9J	mg/L	4.0	2.0	1		04/08/10 01:00	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

Sample: SW-201		Lab ID: 4029910004	Collected: 03/23/10 12:35	Received: 03/26/10 10:10	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	1.1J	ug/L	5.0	0.12	1		03/31/10 07:08	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/31/10 11:26	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/31/10 11:26	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/31/10 11:26	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/31/10 11:26	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/31/10 11:26	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/31/10 11:26	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/31/10 11:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/31/10 11:26	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/31/10 11:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/31/10 11:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/31/10 11:26	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/31/10 11:26	75-09-2	
Tetrachloroethene	1.4	ug/L	1.0	0.45	1		03/31/10 11:26	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/31/10 11:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/31/10 11:26	79-00-5	
1,1,2-Trichloroethene	2.3	ug/L	1.0	0.48	1		03/31/10 11:26	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/31/10 11:26	75-01-4	
4-Bromofluorobenzene (S)	78	%-	70-130		1		03/31/10 11:26	460-00-4	
Dibromofluoromethane (S)	81	%-	70-130		1		03/31/10 11:26	1868-53-7	
Toluene-d8 (S)	83	%-	70-130		1		03/31/10 11:26	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	7.7	mg/L	4.0	2.0	1		04/08/10 01:12	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

Sample: A-4		Lab ID: 4029910005	Collected: 03/23/10 13:15	Received: 03/26/10 10:10	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved		Analytical Method: EPA 6010							
Manganese, Dissolved	3000	ug/L	5.0	0.12	1		03/31/10 07:12	7439-96-5	
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/31/10 11:49	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/31/10 11:49	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/31/10 11:49	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/31/10 11:49	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/31/10 11:49	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/31/10 11:49	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/31/10 11:49	75-34-3	
1,2-Dichloroethane	1.2	ug/L	1.0	0.36	1		03/31/10 11:49	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/31/10 11:49	75-35-4	
cis-1,2-Dichloroethene	3.8	ug/L	1.0	0.83	1		03/31/10 11:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/31/10 11:49	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/31/10 11:49	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/31/10 11:49	127-18-4	
* 1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/31/10 11:49	71-55-6	
.2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/31/10 11:49	79-00-5	
ichloroethene	0.72J	ug/L	1.0	0.48	1		03/31/10 11:49	79-01-6	
Vinyl chloride	1.6	ug/L	1.0	0.18	1		03/31/10 11:49	75-01-4	
4-Bromofluorobenzene (S)	77	%-	70-130		1		03/31/10 11:49	460-00-4	
Dibromofluoromethane (S)	82	%-	70-130		1		03/31/10 11:49	1868-53-7	
Toluene-d8 (S)	80	%-	70-130		1		03/31/10 11:49	2037-26-5	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	4.5	mg/L	4.0	2.0	1		04/08/10 01:25	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace Project No : 4029910

Sample: SW-106		Lab ID: 4029910006	Collected: 03/23/10 15:40	Received: 03/26/10 10:10	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	135 ug/L		5.0	0.12	1		03/31/10 07:16	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND ug/L		20.0	5.0	1		03/31/10 12:12	67-64-1	
Benzene	ND ug/L		1.0	0.41	1		03/31/10 12:12	71-43-2	
2-Butanone (MEK)	ND ug/L		20.0	4.3	1		03/31/10 12:12	78-93-3	
Chloroethane	ND ug/L		1.0	0.97	1		03/31/10 12:12	75-00-3	
Chloroform	ND ug/L		5.0	1.3	1		03/31/10 12:12	67-66-3	
Chloromethane	ND ug/L		1.0	0.24	1		03/31/10 12:12	74-87-3	
1,1-Dichloroethane	ND ug/L		1.0	0.75	1		03/31/10 12:12	75-34-3	
1,2-Dichloroethane	ND ug/L		1.0	0.36	1		03/31/10 12:12	107-06-2	
1,1-Dichloroethene	ND ug/L		1.0	0.57	1		03/31/10 12:12	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		1.0	0.83	1		03/31/10 12:12	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		1.0	0.89	1		03/31/10 12:12	156-60-5	
Methylene Chloride	ND ug/L		1.0	0.43	1		03/31/10 12:12	75-09-2	
Tetrachloroethene	ND ug/L		1.0	0.45	1		03/31/10 12:12	127-18-4	
* 1,1-Trichloroethane	ND ug/L		1.0	0.90	1		03/31/10 12:12	71-55-6	
1,2-Trichloroethane	ND ug/L		1.0	0.42	1		03/31/10 12:12	79-00-5	
1,1,2-Trichloroethene	ND ug/L		1.0	0.48	1		03/31/10 12:12	79-01-6	
Vinyl chloride	ND ug/L		1.0	0.18	1		03/31/10 12:12	75-01-4	
4-Bromofluorobenzene (S)	77 %-		70-130		1		03/31/10 12:12	460-00-4	
Dibromofluoromethane (S)	83 %-		70-130		1		03/31/10 12:12	1868-53-7	
Toluene-d8 (S)	82 %-		70-130		1		03/31/10 12:12	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	8.6 mg/L		4.0	2.0	1		04/08/10 01:37	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

Sample: BW-106		Lab ID: 4029910007	Collected: 03/23/10 16:00	Received: 03/26/10 10:10	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved		Analytical Method: EPA 6010							
Manganese, Dissolved	0.41J	ug/L	5.0	0.12	1		03/31/10 07:20	7439-96-5	
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/31/10 12:36	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/31/10 12:36	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/31/10 12:36	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/31/10 12:36	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/31/10 12:36	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/31/10 12:36	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/31/10 12:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/31/10 12:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/31/10 12:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/31/10 12:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/31/10 12:36	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/31/10 12:36	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/31/10 12:36	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/31/10 12:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/31/10 12:36	79-00-5	
Trichloroethene	0.50J	ug/L	1.0	0.48	1		03/31/10 12:36	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/31/10 12:36	75-01-4	
4-Bromofluorobenzene (S)	80	%-	70-130		1		03/31/10 12:36	460-00-4	
Dibromofluoromethane (S)	80	%-	70-130		1		03/31/10 12:36	1868-53-7	
Toluene-d8 (S)	86	%-	70-130		1		03/31/10 12:36	2037-26-5	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	3.1J	mg/L	4.0	2.0	1		04/08/10 01:49	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

Sample: SW-101 Lab ID: 4029910008 Collected: 03/24/10 10:30 Received: 03/26/10 10:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	15.7	ug/L	5.0	0.12	1		04/07/10 13:35	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/31/10 09:53	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/31/10 09:53	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/31/10 09:53	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/31/10 09:53	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/31/10 09:53	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/31/10 09:53	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/31/10 09:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/31/10 09:53	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/31/10 09:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/31/10 09:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/31/10 09:53	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/31/10 09:53	75-09-2	
Tetrachloroethene	0.48J	ug/L	1.0	0.45	1		03/31/10 09:53	127-18-4	
1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/31/10 09:53	71-55-6	
1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/31/10 09:53	79-00-5	
1,1,2-Trichloroethene	1.2	ug/L	1.0	0.48	1		03/31/10 09:53	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/31/10 09:53	75-01-4	
4-Bromofluorobenzene (S)	79	%-	70-130		1		03/31/10 09:53	460-00-4	
Dibromofluoromethane (S)	83	%-	70-130		1		03/31/10 09:53	1868-53-7	
Toluene-d8 (S)	82	%-	70-130		1		03/31/10 09:53	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	5.4	mg/L	4.0	2.0	1		04/08/10 02:01	14808-79-8	



## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

Sample: BW-201 Lab ID: 4029910009 Collected: 03/24/10 13:55 Received: 03/26/10 10:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	24.8	ug/L	5.0	0.12	1		04/07/10 13:54	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/31/10 12:59	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/31/10 12:59	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/31/10 12:59	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/31/10 12:59	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/31/10 12:59	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/31/10 12:59	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/31/10 12:59	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/31/10 12:59	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/31/10 12:59	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/31/10 12:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/31/10 12:59	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/31/10 12:59	75-09-2	
Tetrachloroethene	0.82J	ug/L	1.0	0.45	1		03/31/10 12:59	127-18-4	
1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/31/10 12:59	71-55-6	
1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/31/10 12:59	79-00-5	
1,1,1-Trichloroethene	1.4	ug/L	1.0	0.48	1		03/31/10 12:59	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/31/10 12:59	75-01-4	
4-Bromofluorobenzene (S)	79	%-	70-130		1		03/31/10 12:59	460-00-4	
Dibromofluoromethane (S)	85	%-	70-130		1		03/31/10 12:59	1868-53-7	
Toluene-d8 (S)	84	%-	70-130		1		03/31/10 12:59	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	2.5J	mg/L	4.0	2.0	1		04/08/10 02:13	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace Project No.: 4029910

Sample: A-5 Lab ID: 4029910010 Collected: 03/24/10 16:00 Received: 03/26/10 10:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	610	ug/L	5.0	0.12	1		04/07/10 13:58	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/31/10 14:55	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/31/10 14:55	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/31/10 14:55	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/31/10 14:55	75-00-3	
Chloroform	5.5	ug/L	5.0	1.3	1		03/31/10 14:55	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/31/10 14:55	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/31/10 14:55	75-34-3	
1,2-Dichloroethane	1.5	ug/L	1.0	0.36	1		03/31/10 14:55	107-06-2	
1,1-Dichloroethene	2.8	ug/L	1.0	0.57	1		03/31/10 14:55	75-35-4	
cis-1,2-Dichloroethene	18.6	ug/L	1.0	0.83	1		03/31/10 14:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/31/10 14:55	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/31/10 14:55	75-09-2	
Tetrachloroethene	31.6	ug/L	1.0	0.45	1		03/31/10 14:55	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/31/10 14:55	71-55-6	
1,1,2-Trichloroethane	1.2	ug/L	1.0	0.42	1		03/31/10 14:55	79-00-5	
1,1,2-Trichloroethene	61.3	ug/L	1.0	0.48	1		03/31/10 14:55	79-01-6	
Vinyl chloride	3.9	ug/L	1.0	0.18	1		03/31/10 14:55	75-01-4	
4-Bromofluorobenzene (S)	78	%-	70-130		1		03/31/10 14:55	460-00-4	
Dibromofluoromethane (S)	86	%-	70-130		1		03/31/10 14:55	1868-53-7	
Toluene-d8 (S)	82	%-	70-130		1		03/31/10 14:55	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	5.0	mg/L	4.0	2.0	1		04/08/10 02:50	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

Sample: SW-202		Lab ID: 4029910011	Collected	03/25/10 13:40	Received: 03/26/10 10:10	Matrix: Water			
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved		Analytical Method: EPA 6010							
Manganese, Dissolved	65.0	ug/L	5.0	0.12	1		04/07/10 14:02	7439-96-5	
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		03/31/10 13:22	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/31/10 13:22	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/31/10 13:22	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/31/10 13:22	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/31/10 13:22	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/31/10 13:22	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/31/10 13:22	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/31/10 13:22	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/31/10 13:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/31/10 13:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/31/10 13:22	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/31/10 13:22	75-09-2	
Tetrachloroethene	1.3	ug/L	1.0	0.45	1		03/31/10 13:22	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/31/10 13:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/31/10 13:22	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.48	1		03/31/10 13:22	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/31/10 13:22	75-01-4	
4-Bromofluorobenzene (S)	80	%-	70-130		1		03/31/10 13:22	460-00-4	
Dibromofluoromethane (S)	83	%-	70-130		1		03/31/10 13:22	1868-53-7	
Toluene-d8 (S)	81	%-	70-130		1		03/31/10 13:22	2037-26-5	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	2.9J	mg/L	4.0	2.0	1		04/08/10 03:02	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

Sample: A-6 Lab ID: 4029910012 Collected: 03/25/10 15:10 Received: 03/26/10 10:10 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	3430	ug/L	5.0	0.12	1		04/07/10 14:06	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/31/10 13:45	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/31/10 13:45	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/31/10 13:45	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/31/10 13:45	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/31/10 13:45	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/31/10 13:45	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/31/10 13:45	75-34-3	
1,2-Dichloroethane	1.2	ug/L	1.0	0.36	1		03/31/10 13:45	107-06-2	
1,1-Dichloroethene	0.77J	ug/L	1.0	0.57	1		03/31/10 13:45	75-35-4	
cis-1,2-Dichloroethene	19.4	ug/L	1.0	0.83	1		03/31/10 13:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/31/10 13:45	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/31/10 13:45	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/31/10 13:45	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/31/10 13:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/31/10 13:45	79-00-5	
1,1,2,2-Tetrachloroethane	3.8	ug/L	1.0	0.48	1		03/31/10 13:45	79-01-6	
Vinyl chloride	10.4	ug/L	1.0	0.18	1		03/31/10 13:45	75-01-4	
4-Bromofluorobenzene (S)	79	%-	70-130		1		03/31/10 13:45	460-00-4	
Dibromofluoromethane (S)	81	%-	70-130		1		03/31/10 13:45	1868-53-7	
Toluene-d8 (S)	86	%-	70-130		1		03/31/10 13:45	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	5.0	mg/L	4.0	2.0	1		04/08/10 03:14	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace: Project No.: 4029910

Sample: DU-10102		Lab ID: 4029910013		Collected:		Received: 03/26/10 10:10		Matrix: Water	
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010: MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	622 ug/L		5.0	0.12	1		04/07/10 14:10	7439-96-5	
<b>8260: MSV</b>		Analytical Method: EPA 8260							
Acetone	ND ug/L		20.0	5.0	1		03/31/10 14:09	67-64-1	
Benzene	ND ug/L		1.0	0.41	1		03/31/10 14:09	71-43-2	
2-Butanone (MEK)	ND ug/L		20.0	4.3	1		03/31/10 14:09	78-93-3	
Chloroethane	ND ug/L		1.0	0.97	1		03/31/10 14:09	75-00-3	
Chloroform	5.1 ug/L		5.0	1.3	1		03/31/10 14:09	67-66-3	
Chloromethane	ND ug/L		1.0	0.24	1		03/31/10 14:09	74-87-3	
1,1-Dichloroethane	ND ug/L		1.0	0.75	1		03/31/10 14:09	75-34-3	
1,2-Dichloroethane	1.3 ug/L		1.0	0.36	1		03/31/10 14:09	107-06-2	
1,1-Dichloroethene	2.4 ug/L		1.0	0.57	1		03/31/10 14:09	75-35-4	
cis-1,2-Dichloroethene	19.1 ug/L		1.0	0.83	1		03/31/10 14:09	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		1.0	0.89	1		03/31/10 14:09	156-60-5	
Methylene Chloride	ND ug/L		1.0	0.43	1		03/31/10 14:09	75-09-2	
Tetrachloroethene	29.4 ug/L		1.0	0.45	1		03/31/10 14:09	127-18-4	
1,1,1-Trichloroethane	ND ug/L		1.0	0.90	1		03/31/10 14:09	71-55-6	
1,1,2-Trichloroethane	1.1 ug/L		1.0	0.42	1		03/31/10 14:09	79-00-5	
Trichloroethene	59.3 ug/L		1.0	0.48	1		03/31/10 14:09	79-01-6	
Vinyl chloride	3.9 ug/L		1.0	0.18	1		03/31/10 14:09	75-01-4	
4-Bromofluorobenzene (S)	80 %-		70-130		1		03/31/10 14:09	460-00-4	
Dibromofluoromethane (S)	82 %-		70-130		1		03/31/10 14:09	1868-53-7	
Toluene-d8 (S)	83 %-		70-130		1		03/31/10 14:09	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	5.0 mg/L		4.0	2.0	1		04/08/10 03:26	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace Project No.: 4029910

Sample: TBLK-10103 Lab ID: 4029910014 Collected: 03/19/10 00:00 Received: 03/26/10 10:10 Matrix: Water

iParameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		03/31/10 10:16	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		03/31/10 10:16	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		03/31/10 10:16	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		03/31/10 10:16	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		03/31/10 10:16	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		03/31/10 10:16	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		03/31/10 10:16	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		03/31/10 10:16	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		03/31/10 10:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		03/31/10 10:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		03/31/10 10:16	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		03/31/10 10:16	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		03/31/10 10:16	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		03/31/10 10:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		03/31/10 10:16	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.48	1		03/31/10 10:16	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		03/31/10 10:16	75-01-4	
Bromofluorobenzene (S)	81	%-	70-130		1		03/31/10 10:16	460-00-4	
Bromofluoromethane (S)	85	%-	70-130		1		03/31/10 10:16	1868-53-7	
Toluene-d8 (S)	86	%-	70-130		1		03/31/10 10:16	2037-26-5	

### QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

QC Batch: ICP/3256 Analysis Method: EPA 6010  
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved  
Associated Lab Samples: 4029910001, 4029910002, 4029910003, 4029910004, 4029910005, 4029910006, 4029910007

METHOD BLANK: 280723 Matrix: Water  
Associated Lab Samples: 4029910001, 4029910002, 4029910003, 4029910004, 4029910005, 4029910006, 4029910007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	5.0	03/31/10 05:29	

LABORATORY CONTROL SAMPLE: 280724

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	500	467	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 280725 280726

Parameter	Units	4029860026 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Manganese, Dissolved	ug/L	258	500	500	708	708	90	90	75-125	.01	20

## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

QC Batch: ICP/3272 Analysis Method: EPA 6010  
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved  
Associated Lab Samples: 4029910008, 4029910009, 4029910010, 4029910011, 4029910012, 4029910013

METHOD BLANK: 282097 Matrix: Water  
Associated Lab Samples: 4029910008, 4029910009, 4029910010, 4029910011, 4029910012, 4029910013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	ND	5.0	04/07/10 13:27	

LABORATORY CONTROL SAMPLE: 282098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	500	511	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 282099 282100

Parameter	Units	4029910008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
anganese, Dissolved	ug/L	15.7	500	500	513	515	99	100	75-125	.4 20	



## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

QC Batch: MSV/7352 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
Associated Lab Samples: 4029910001, 4029910002, 4029910003, 4029910004, 4029910005, 4029910006, 4029910007, 4029910008, 4029910009, 4029910010, 4029910011, 4029910012, 4029910013, 4029910014

METHOD BLANK: 280370 Matrix: Water  
Associated Lab Samples: 4029910001, 4029910002, 4029910003, 4029910004, 4029910005, 4029910006, 4029910007, 4029910008, 4029910009, 4029910010, 4029910011, 4029910012, 4029910013, 4029910014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	03/31/10 07:44	
1,1,2-Trichloroethane	ug/L	ND	1.0	03/31/10 07:44	
1,1-Dichloroethane	ug/L	ND	1.0	03/31/10 07:44	
1,1-Dichloroethene	ug/L	ND	1.0	03/31/10 07:44	
1,2-Dichloroethane	ug/L	ND	1.0	03/31/10 07:44	
2-Butanone (MEK)	ug/L	ND	20.0	03/31/10 07:44	
Acetone	ug/L	ND	20.0	03/31/10 07:44	
Benzene	ug/L	ND	1.0	03/31/10 07:44	
Chloroethane	ug/L	ND	1.0	03/31/10 07:44	
Chloroform	ug/L	ND	5.0	03/31/10 07:44	
Chloromethane	ug/L	ND	1.0	03/31/10 07:44	
cis-1,2-Dichloroethene	ug/L	ND	1.0	03/31/10 07:44	
ethylene Chloride	ug/L	ND	1.0	03/31/10 07:44	
tetrachloroethene	ug/L	ND	1.0	03/31/10 07:44	
trans-1,2-Dichloroethene	ug/L	ND	1.0	03/31/10 07:44	
Trichloroethene	ug/L	ND	1.0	03/31/10 07:44	
Vinyl chloride	ug/L	ND	1.0	03/31/10 07:44	
4-Bromofluorobenzene (S)	%-	79	70-130	03/31/10 07:44	
Dibromofluoromethane (S)	%-	79	70-130	03/31/10 07:44	
Toluene-d8 (S)	%-	84	70-130	03/31/10 07:44	

LABORATORY CONTROL SAMPLE & LCSD:		280371 280372								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	54.5	55.1	109	110	70-132	1	20	
1,1,2-Trichloroethane	ug/L	50	47.6	49.4	95	99	70-130	4	20	
1,1-Dichloroethane	ug/L	50	52.4	51.8	105	104	70-130	1	20	
1,1-Dichloroethene	ug/L	50	52.0	50.8	104	102	70-130	2	20	
1,2-Dichloroethane	ug/L	50	52.8	52.9	106	106	70-134	.2	20	
2-Butanone (MEK)	ug/L	50	60.6	53.5	121	107	36-181	12	35	
Acetone	ug/L	50	73.1	67.9	146	136	10-200	7	36	
Benzene	ug/L	50	50.2	50.3	100	101	70-131	.2	20	
Chloroethane	ug/L	50	53.1	53.9	106	108	70-136	1	20	
Chloroform	ug/L	50	50.7	51.1	101	102	70-130	.6	20	
Chloromethane	ug/L	50	46.1	45.0	92	90	54-148	2	20	
cis-1,2-Dichloroethene	ug/L	50	49.5	50.2	99	100	70-130	2	20	
Methylene Chloride	ug/L	50	49.5	48.7	99	97	66-130	2	20	
Tetrachloroethene	ug/L	50	52.0	52.2	104	104	75-130	.4	20	
trans-1,2-Dichloroethene	ug/L	50	49.9	50.7	100	101	70-130	1	20	
Trichloroethene	ug/L	50	54.8	54.1	110	108	70-130	1	20	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

LABORATORY CONTROL SAMPLE & LCSD: 280371			280372							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Vinyl chloride	ug/L	50	45.4	45.1	91	90	63-141	.5	20	
4-Bromofluorobenzene (S)	%-				81	81	70-130			
Dibromofluoromethane (S)	%-				83	83	70-130			
Toluene-d8 (S)	%-				83	85	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 280856			280857									
Parameter	Units	4029910008		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		Result	Conc.	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
1,1,1-Trichloroethane	ug/L	ND	50	50	55.1	55.7	110	111	110	70-137	1	20
1,1,2-Trichloroethane	ug/L	ND	50	50	45.6	47.5	91	95	95	70-130	4	20
1,1-Dichloroethane	ug/L	ND	50	50	53.0	52.3	106	105	105	70-130	1	20
1,1-Dichloroethene	ug/L	ND	50	50	50.7	51.1	101	102	102	70-130	.6	20
1,2-Dichloroethane	ug/L	ND	50	50	51.0	51.8	102	104	104	69-134	2	20
2-Butanone (MEK)	ug/L	ND	50	50	41.7	44.5	83	89	89	36-181	7	35
Acetone	ug/L	ND	50	50	45.9	48.8	92	98	98	10-200	6	36
Benzene	ug/L	ND	50	50	49.2	50.5	98	101	101	69-131	3	20
Chloroethane	ug/L	ND	50	50	52.0	52.1	104	104	104	66-136	.1	20
Chloroform	ug/L	ND	50	50	51.7	52.5	103	105	105	70-130	2	20
Chloromethane	ug/L	ND	50	50	44.6	43.5	89	87	87	54-148	3	20
cis-1,2-Dichloroethene	ug/L	ND	50	50	51.1	52.0	102	104	104	70-130	2	20
Methylene Chloride	ug/L	ND	50	50	49.3	49.3	99	99	99	64-130	.08	20
Tetrachloroethene	ug/L	0.48J	50	50	51.0	53.1	101	105	105	70-130	4	20
trans-1,2-Dichloroethene	ug/L	ND	50	50	48.8	48.9	98	98	98	70-130	.1	20
Trichloroethene	ug/L	1.2	50	50	55.3	55.3	108	108	108	70-130	.05	20
Vinyl chloride	ug/L	ND	50	50	46.2	44.8	92	90	90	59-141	3	20
4-Bromofluorobenzene (S)	%-							78	81	70-130		
Dibromofluoromethane (S)	%-							86	85	70-130		
Toluene-d8 (S)	%-							82	84	70-130		

## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

QC Batch: WETA/6101 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 4029910001, 4029910002, 4029910003, 4029910004, 4029910005, 4029910006, 4029910007, 4029910008, 4029910009, 4029910010, 4029910011, 4029910012, 4029910013

METHOD BLANK: 283762 Matrix: Water  
Associated Lab Samples: 4029910001, 4029910002, 4029910003, 4029910004, 4029910005, 4029910006, 4029910007, 4029910008, 4029910009, 4029910010, 4029910011, 4029910012, 4029910013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	4.0	04/07/10 23:11	

LABORATORY CONTROL SAMPLE: 283763

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	19.4	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 283764 283765

Parameter	Units	4029910002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Sulfate	mg/L	4.8	20	20	23.1	23.0	92	91	90-110	.8	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 283766 283767

Parameter	Units	4030176001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Sulfate	mg/L	711	400	400	1170	1110	115	99	90-110	6	20 M0

## QUALIFIERS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4029910

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4029910001	BW-4	EPA 6010	ICP/3256		
4029910002	BW-3	EPA 6010	ICP/3256		
4029910003	A-3	EPA 6010	ICP/3256		
4029910004	SW-201	EPA 6010	ICP/3256		
4029910005	A-4	EPA 6010	ICP/3256		
4029910006	SW-106	EPA 6010	ICP/3256		
4029910007	BW-106	EPA 6010	ICP/3256		
4029910008	SW-101	EPA 6010	ICP/3272		
4029910009	BW-201	EPA 6010	ICP/3272		
4029910010	A-5	EPA 6010	ICP/3272		
4029910011	SW-202	EPA 6010	ICP/3272		
4029910012	A-6	EPA 6010	ICP/3272		
4029910013	DU-10102	EPA 6010	ICP/3272		
4029910001	BW-4	EPA 8260	MSV/7352		
4029910002	BW-3	EPA 8260	MSV/7352		
4029910003	A-3	EPA 8260	MSV/7352		
4029910004	SW-201	EPA 8260	MSV/7352		
4029910005	A-4	EPA 8260	MSV/7352		
4029910006	SW-106	EPA 8260	MSV/7352		
4029910007	BW-106	EPA 8260	MSV/7352		
4029910008	SW-101	EPA 8260	MSV/7352		
4029910009	BW-201	EPA 8260	MSV/7352		
4029910010	A-5	EPA 8260	MSV/7352		
4029910011	SW-202	EPA 8260	MSV/7352		
4029910012	A-6	EPA 8260	MSV/7352		
4029910013	DU-10102	EPA 8260	MSV/7352		
4029910014	TBLK-10103	EPA 8260	MSV/7352		
4029910001	BW-4	EPA 300.0	WETA/6101		
4029910002	BW-3	EPA 300.0	WETA/6101		
4029910003	A-3	EPA 300.0	WETA/6101		
4029910004	SW-201	EPA 300.0	WETA/6101		
4029910005	A-4	EPA 300.0	WETA/6101		
4029910006	SW-106	EPA 300.0	WETA/6101		
4029910007	BW-106	EPA 300.0	WETA/6101		
4029910008	SW-101	EPA 300.0	WETA/6101		
4029910009	BW-201	EPA 300.0	WETA/6101		
4029910010	A-5	EPA 300.0	WETA/6101		
4029910011	SW-202	EPA 300.0	WETA/6101		
4029910012	A-6	EPA 300.0	WETA/6101		
4029910013	DU-10102	EPA 300.0	WETA/6101		

30 Patewood Drive, Suite 100, Patewood Plaza One, Greenville, SC 29615-3535  
Phone 864/281-0030 • Fax 864/281-0288

Project No.		Project/Client:		Total Number of Containers	MATRIX	Preserved Codes														
71243-61		Medley Farms				A — NONE B — HNO <sub>3</sub> C — H <sub>2</sub> SO <sub>4</sub> D — NaOH E — HCl F — METHANOL G — _____														
Project Manager/Contact Person:						Analyses Requested														
Steve Webb / Terry Hertz						VOC's	Diss	Manganese	Sulfate											
Lab No.	Yr.	Date	Time	Sample Station ID																
001	3-19	1035	BW-4	S	GW	3	1	1												
002	3-19	1240	BW-3	S	GW	3	1	1												
003	3-22	1430	A-3	S	GW	3	1	1												
004	3-23	1235	SW-201	S	GW	3	1	1												
005	3-23	1315	A-4	S	GW	3	1	1												
006	3-23	1540	SW-104	S	GW	3	1	1												
007	3-23	1600	BW-106	S	GW	3	1	1												
008	3-24	1030	SW-101	S	GW	3	1	1												
009	3-24	1355	BW-201	S	GW	3	1	1												
010	3-24	1600	A-5	S	GW	3	1	1												

**SPECIAL INSTRUCTIONS**

---

SAMPLER Relinquished by (Signature)		Date/Time	Received by (Signature)		Date/Time	HAZARDS ASSOCIATED WITH SAMPLES  <input type="checkbox"/> Flammable <input type="checkbox"/> Corrosive <input type="checkbox"/> Highly Toxic <input type="checkbox"/> Other (list) _____	Turn Around (circle one)    Normal    Rush	
<i>[Signature]</i>		3/25/10 1730	<i>Fed Ex # 8712 6041 8535</i>		3/25/10 1730		Report Due _____	
Relinquished by (Signature)		Date/Time	Received by (Signature)		Date/Time			
<i>Fed Ex</i>		3/26/10 1010	<i>K Mueke</i>		3/26/10 1010			(For Lab Use Only)
Relinquished by (Signature)		Date/Time	Received by (Signature)		Date/Time	Receipt Temp: <i>4°C</i>		Receipt pH
						Temp Blank Y <i>N</i>		(Wet/Metals)

Custody Seal: Present/Absent    Intact/Not Intact    Seal #s



4025 '0  
770'

Project No. <sup>T-0001</sup> 71243.61	Project/Client: Medley Farms
---	---------------------------------

Steve Webb / Terry Hertz

[illegible]Total Number  
of Containers

## MATRIX

[illegible]

SPECIAL INSTRUCTIONS

SAMPLER Relinquished by (Signature)	Date/Time 1730 Bill Mello 3/25/10	Received by (Signature)	Date/Time 1730 Fed Ex 8712 6041 8535 3/25/10
Relinquished by (Signature)	Date/Time 3/25/10 1010 Fed Ex	Received by (Signature)	Date/Time 3/25/10 1010 K Mello
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

HAZARDS ASSOCIATED  
WITH SAMPLES

☐ Flammable  
☐ Corrosive  
☐ Highly Toxic  
☐ Other (list)

Turn Around (circle one)    Normal    Rush  
Report Due \_\_\_\_\_

(For Lab Use Only)

Receipt Temp: 40C  
Temp Blank: ~~40C~~ (N)

Receipt pH  
(Wet/~~(Metals)~~)

Custody Seal:	Present/Absent	Intact/Not Intact	Seal #s
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Pace Analytical Services, Inc.  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302

## Sample Condition Upon Receipt

Client Name: RMT

Project # 4029910

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other \_\_\_\_\_

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☒ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☒ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None Other \_\_\_\_\_

Thermometer Used JB

Type of Ice: Wet Blue Dry None ☐ Samples on ice, cooling process has begun

Cooler Temperature 4°C

Biological Tissue is Frozen: ☐ yes

Temp Blank Present: ☐ yes ☒ no

☐ no

Temp should be above freezing to 6°C for all sample except Biota.

Biota Samples should be received ≤ 0°C.

Comments:

Person examining contents:

Date: 3-26-10

Initials: KM

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Ice Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>W</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <u>KM</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review:

KM

Date: 3/29/10

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)





Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

Page: Page 1 of 16  
Lab Proj #: P1003359  
Report Date: 04/12/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

### Laboratory Results

Total pages in data package: 19

<u>Lab Sample #</u>	<u>Client Sample ID</u>
P1003359-01	BW-4
P1003359-02	BW-3
P1003359-03	A-3
P1003359-04	SW-201
P1003359-05	A-4
P1003359-06	SW-106
P1003359-07	BW-106
P1003359-08	SW-101
P1003359-09	BW-201
P1003359-10	A-5
P1003359-11	SW-202
P1003359-12	A-6
P1003359-13	DU-10102

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By:

*Debbie Hallo*

Date:

*4-12-10*

Project Manager:

Debbie Hallo

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

*As a valued client we would appreciate your comments on our service.  
Please call customer service at (412)826-5245 or email customerservice@microseeps.com.*

TEMP-OK; CoC-SIGNED; HT-OK; NARR-N/A

MBLK - CLEAN

LCS- RECS OK

MS/MSD - DU-10102 USED;  
RECS & RPDs OK



DUP - DU-10102 IS A FIELD DUPLICATE OF A-5.

NO DETECTIONS IN DU-10102. PROPIONIC ACID AT 1.0 Jmg/L IN A-5.  
RPD NOT CALCULATED

Client Name: RMT, Inc.  
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Page: Page 1 of 16  
Lab Proj #: P1003359  
Report Date: 04/12/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

### Laboratory Results

Total pages in data package: 19

Lab Sample #	Client Sample ID
P1003359-01	BW-4
P1003359-02	BW-3
P1003359-03	A-3
P1003359-04	SW-201
P1003359-05	A-4
P1003359-06	SW-106
P1003359-07	BW-106
P1003359-08	SW-101
P1003359-09	BW-201
P1003359-10	A-5
P1003359-11	SW-202
P1003359-12	A-6
P1003359-13	DU-10102

SLH 4/13/10

No FLAGS

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By: Debbie Hallo Date: 4-12-10  
Project Manager: Debbie Hallo

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

As a valued client we would appreciate your comments on our service.  
Please call customer service at (412)826-5245 or email customerservice@microseeps.com.

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
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Page: Page 2 of 16  
Lab Proj#: P1003359  
Report Date: 04/12/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

Case Narrative:



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis.

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 3 of 16  
 Lab Proj #: P1003359  
 Report Date: 04/12/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
BW-4	Water	P1003359-01	19 Mar. 10 10:35	26 Mar. 10 12:44			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid		2.3	1.0	mg/L	AM21G	4/9/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/9/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/9/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/9/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/9/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
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Greenville, SC 29615-3535

Page: Page 4 of 16  
Lab Proj #: P1003359  
Report Date: 04/12/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>			<u>Sampled Date/Time</u>	<u>Received</u>	
BW-3	Water	P1003359-02			19 Mar. 10 12:40	26 Mar. 10 12:44	
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/9/10	td
N Butyric Acid		2.9	1.0	mg/L	AM21G	4/9/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/9/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/9/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/9/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
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Page: Page 5 of 16  
 Lab Proj #: P1003359  
 Report Date: 04/12/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
A-3	Water	P1003359-03	22 Mar. 10 14:30	26 Mar. 10 12:44			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/9/10	td
N Butyric Acid	J	0.8	1.0	mg/L	AM21G	4/9/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/9/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/9/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/9/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 6 of 16  
 Lab Proj #: P1003359  
 Report Date: 04/12/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
SW-201	Water	P1003359-04	23 Mar. 10 12:35	26 Mar. 10 12:44			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/9/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/9/10	td
N Lactic Acid	J	2.6	25.0	mg/L	AM21G	4/9/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/9/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/9/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
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30 Patewood Drive  
Greenville, SC 29615-3535

Page: Page 7 of 16  
Lab Proj #: P1003359  
Report Date: 04/12/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>			<u>Sampled Date/Time</u>	<u>Received</u>	
A-4	Water	P1003359-05			23 Mar. 10 13:15	26 Mar. 10 12:44	
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/10/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/10/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis



Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 8 of 16  
 Lab Proj #: P1003359  
 Report Date: 04/12/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
SW-106	Water	P1003359-06	23 Mar. 10 15:40	26 Mar. 10 12:44			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/10/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/10/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 9 of 16  
 Lab Proj #: P1003359  
 Report Date: 04/12/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
BW-106	Water	P1003359-07	23 Mar. 10 16:00	26 Mar. 10 12:44			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/10/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/10/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 10 of 16  
 Lab Proj #: P1003359  
 Report Date: 04/12/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
SW-101	Water	P1003359-08	24 Mar. 10 10:50	26 Mar. 10 12:44			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/10/10	td
N Propionic Acid	J	0.6	1.0	mg/L	AM21G	4/10/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/10/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 11 of 16  
 Lab Proj #: P1003359  
 Report Date: 04/12/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>		<u>Received</u>		
BW-201	Water	P1003359-09	24 Mar. 10 13:55		26 Mar. 10 12:44		
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/10/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/10/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

Page: Page 12 of 16  
Lab Proj #: P1003359  
Report Date: 04/12/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
A-5	Water	P1003359-10	24 Mar. 10 16:00	26 Mar. 10 12:44			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/10/10	td
N Propionic Acid	J	1.0	1.0	mg/L	AM21G	4/10/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/10/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

Page: Page 13 of 16  
Lab Proj #: P1003359  
Report Date: 04/12/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
SW-202	Water	P1003359-11	25 Mar. 10 13:40	26 Mar. 10 12:44			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/10/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Pyruvic Acid	J	3.0	10.0	mg/L	AM21G	4/10/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 14 of 16  
 Lab Proj #: P1003359  
 Report Date: 04/12/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
A-6	Water	P1003359-12	25 Mar. 10 15:10	26 Mar. 10 12:44			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/10/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/10/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 15 of 16  
 Lab Proj #: P1003359  
 Report Date: 04/12/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>			<u>Sampled Date/Time</u>	<u>Received</u>	
DU-10102	Water	P1003359-13			25 Mar. 10 0:00	26 Mar. 10 12:44	
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/10/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/10/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/10/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis



Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 16 of 16  
 Lab Proj #: P1003359  
 Report Date: 04/12/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

**Prep Method:** Analysis of Volatile Fatty Acids in Water  
**Analysis Method:** Analysis of Volatile Fatty Acids in Water

**M100412016-MB**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>RDL</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	< 1.0 mg/L		1.0		- NA
Propionic Acid	< 1.0 mg/L		1.0		- NA
Butyric Acid	< 1.0 mg/L		1.0		- NA
Lactic Acid	< 25.0 mg/L		25.0		- NA
Pyruvic Acid	< 10.0 mg/L		10.0		- NA

**M100412016-LCS**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	110.0 mg/L	100.00	110.00	70 - 130
Propionic Acid	100.0 mg/L	100.00	100.00	70 - 130
Butyric Acid	90.0 mg/L	100.00	90.00	70 - 130
Lactic Acid	110.0 mg/L	100.00	110.00	70 - 130
Pyruvic Acid	96.0 mg/L	100.00	96.00	70 - 130

**P1003359-13A-MS**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	110.0 mg/L	100.00	110.00	70 - 130
Propionic Acid	110.0 mg/L	100.00	110.00	70 - 130
Butyric Acid	98.0 mg/L	100.00	98.00	70 - 130
Lactic Acid	96.0 mg/L	100.00	96.00	70 - 130
Pyruvic Acid	94.0 mg/L	100.00	94.00	70 - 130

**P1003359-13A-MSD**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>	<u>RPD</u>	<u>RPD Ctl Limits</u>
Acetic Acid	110.0 mg/L	100.00	110.00	70 - 130	0.00	0 - 20
Propionic Acid	120.0 mg/L	100.00	120.00	70 - 130	8.70	0 - 20
Butyric Acid	110.0 mg/L	100.00	110.00	70 - 130	11.54	0 - 20
Lactic Acid	100.0 mg/L	100.00	100.00	70 - 130	4.08	0 - 20
Pyruvic Acid	95.0 mg/L	100.00	95.00	70 - 130	1.06	0 - 20

Outlined Results indicate results outside of Control limits



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis



## CHAIN OF CUSTODY RECORD

P1103359

77073

30 Patewood Drive, Suite 100, Patewood Plaza One, Greenville, SC 29615-3535  
Phone 864/281-0030 • Fax 864/281-0288

Project No. <u>7-0001</u> <u>71243-61</u>				Project/Client: <u>Medley Farms</u>		Total Number of Containers	MATRIX	Analyses Requested <u>Volatile &amp; Heavy Metals</u>										Comments:	PRESERVED CODES A — NONE B — HNO <sub>3</sub> C — H <sub>2</sub> SO <sub>4</sub> D — NaOH E — HCl F — METHANOL G — _____
Project Manager/Contact Person: <u>Steve Webb / Terry Hertz</u>				Filtered (Yes/No) <u>N</u> Preserved (Code) <u>A</u>															
Lab No.	Yr. <u>10</u> Date	Time	Sample Station ID																
1	3-19	1035	BW-4	2	GW	2													
2	3-19	1240	BW-3	2	GW	2													
3	3-22	1430	A-3	2	GW	2													
4	3-23	1235	SW-201	2	GW	2													
5	3-23	1315	A-4	2	GW	2													
6	3-23	1540	SW-104	2	GW	2													
7	3-23	1600	BW-106	2	GW	2													
8	3-24	1050	SW-101	2	GW	2													
9	3-24	1355	BW-201	2	GW	2													
10	3-24	1600	A-5	2	GW	2													

SPECIAL INSTRUCTIONS

SAMPLER Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	HAZARDS ASSOCIATED WITH SAMPLES	Turn Around (circle one)	Normal	Rush
<u>Bill Medley</u>	<u>3/25/10</u>	<u>Felix B712 6041 8524</u>	<u>3-25-10</u>	<input type="checkbox"/> Flammable <input type="checkbox"/> Corrosive <input type="checkbox"/> Highly Toxic <input type="checkbox"/> Other (list) _____	Report Due _____		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time		(For Lab Use Only)		
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time		Receipt Temp: Temp Blank Y N	Receipt pH (Wet/Metals)	
Custody Seal: Present/Absent Intact/Not Intact Seal #s							



# Cooler Receipt Form

Client: RMT, Inc.

Client Code: RMTSC

Lab Project #: P1003359

Project: Medley Farm

Cooler ID: 1

**A. Preliminary Examination Phase:**

Date cooler opened: 3/26/2010

Cooler opened by: dp

1. Was airbill Attached? N/A

Airbill #:

Carrier Name: FedEx

2. Custody Seals? N/A

How many? 0

Location:

Seal Name:

3. Seals intact? Yes

4. Screened for radiation? N/A

5. COC Attached? Yes

Properly Completed? Yes

Signed by employee? Yes

6. Project Identification from custody paper: Medley Farm

7. Preservative: Yes

Temperature: 4

Comments:

**B. Log-In Phase:** Samples Log-in Date: 3/26/2010 Log-in By: dp

1. Packing Type: Other

Were samples in separate bags? N/A

3. Were containers intact? Yes

Labels agree with COC? Yes

4. Number of bottles received: 26

Number of samples received: 13

5. Correct containers used? Yes

Correct preservatives added? N/A

6. Sufficient sample volume? Yes

7. Bubbles in VOA samples? N/A

8. Was Project manager called and status discussed? N/A

Comments:

Have designate person initial here to acknowledge receipt of cooler:

Date:

April 16, 2010

Mark Bailey  
RMT Greenville  
30 Patewood Drive  
Suite 100, Patewood Plaza One  
Greenville, SC 296153535

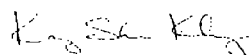
RE: Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

Dear Mark Bailey:

Enclosed are the analytical results for sample(s) received by the laboratory on April 02, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kang Khang

kang.khang@pacelabs.com  
Project Manager

Enclosures

## REPORT OF LABORATORY ANALYSIS

Page 1 of 31

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TEMP-OK; CoC-SIGNED; NARR-OK; HT-OK

Pace Analytical Services, Inc.  
1241 Bellevue Street - Suite 9  
Green Bay, WI 54302  
(920)469-2436

SURR-RECS OK

MBLKS — CLEAN EXCEPT FOR Mn, DISS AT 0.56 Jg/L.

TBLK-10104-CLEAN

LCS/LCSD-RECS+RPDs  
OK

April 16, 2010

Mark Bailey  
RMT Greenville  
30 Patewood Drive  
Suite 100, Patewood Plaza One  
Greenville, SC 296153535

A "U" FLAG IS ASSIGNED TO  
DISSOLVED MANGANESE IN THE  
FOLLOWING SAMPLES BECAUSE  
OF COMPARABLE CONCENTRATION  
IN THE ASSOCIATED METHOD  
BLANK: BW-110, BW-109  
AND SW-102

MS/MSD - DISS Mn - RPD OK; MS+MSD RECS NOMINALLY  
LOW. A-7 USED FOR MS+MSD. NO FLAG

RE: Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

~~A "J" - FLAG IS ASSIGNED~~ ASSIGNED  
BECAUSE PARENT CONC. > 4X  
SPIKING CONC.

Dear Mark Bailey:

-VOCs - RECS + RPDs OK; BATCH QC

Enclosed are the analytical results for sample(s) received by the laboratory on April 02, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

-SO<sub>4</sub> - 3 MS/MSD PAIRS: 1 BATCH QC, A-7, MW-3D;

If you have any questions concerning this report, please feel free to contact me. ALL RPDs + RECS OK

Sincerely,



FIELD DUP — DU-10103 IS A FIELD DUPLICATE OF MW-3D.  
CALCULATABLE RPDs < 10%. NO FLAGS

Kang Khang

kang.khang@pacelabs.com  
Project Manager

Enclosures



4/19/10

# REPORT OF LABORATORY ANALYSIS

Page 1 of 31

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## CERTIFICATIONS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

---

### Green Bay Certification IDs

1241 Bellevue Street Green Bay, WI 54302  
Wisconsin DATCP Certification #: 105-444  
Wisconsin Certification #: 405132750  
South Carolina Certification #: 83006001  
North Dakota Certification #: R-150  
North Carolina Certification #: 503  
California Certification #: 09268CA

New York Certification #: 11887  
Minnesota Certification #: 055-999-334  
Louisiana Certification #: 04168  
Kentucky Certification #: 82  
Illinois Certification #: 200050  
Florida/NELAP Certification #: E87948  
New York Certification #: 11888

## REPORT OF LABORATORY ANALYSIS

Page 2 of 31

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## SAMPLE SUMMARY

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4030145001	A-7	Water	03/26/10 12:10	04/02/10 10:00
4030145002	BW-108	Water	03/26/10 14:30	04/02/10 10:00
4030145003	SW-108	Water	03/26/10 11:40	04/02/10 10:00
4030145004	BW-110	Water	03/30/10 09:30	04/02/10 10:00
4030145005	SW-102	Water	03/30/10 10:45	04/02/10 10:00
4030145006	SW-103	Water	03/30/10 11:40	04/02/10 10:00
4030145007	SW-109	Water	03/30/10 14:50	04/02/10 10:00
4030145008	BW-109	Water	03/30/10 14:20	04/02/10 10:00
4030145009	SW-104	Water	03/30/10 16:20	04/02/10 10:00
4030145010	BW-202	Water	03/31/10 09:40	04/02/10 10:00
4030145011	SW-3	Water	03/31/10 10:40	04/02/10 10:00
4030145012	MW-3D	Water	03/31/10 11:30	04/02/10 10:00
4030145013	BW-1	Water	03/31/10 14:30	04/02/10 10:00
4030145014	SW-1	Water	03/31/10 13:40	04/02/10 10:00
4030145015	DU-10103	Water	03/31/10 00:00	04/02/10 10:00
930145016	TBLK-10104	Water	03/31/10 00:00	04/02/10 10:00

## REPORT OF LABORATORY ANALYSIS

Page 3 of 31

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## SAMPLE ANALYTE COUNT

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4030145001	A-7	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4030145002	BW-108	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4030145003	SW-108	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4030145004	BW-110	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4030145005	SW-102	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4030145006	SW-103	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4030145007	SW-109	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4030145008	BW-109	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4030145009	SW-104	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4030145010	BW-202	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4030145011	SW-3	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4030145012	MW-3D	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4030145013	BW-1	EPA 6010	DLB	1	PASI-G

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4030145014	SW-1	EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
		EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
4030145015	DU-10103	EPA 300.0	DDY	1	PASI-G
		EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	20	PASI-G
		EPA 300.0	DDY	1	PASI-G
4030145016	TBLK-10104	EPA 8260	SMT	20	PASI-G

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

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**Method:** EPA 6010  
**Description:** 6010 MET ICP, Dissolved  
**Client:** RMT - GREENVILLE  
**Date:** April 16, 2010

### General Information:

15 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

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**Method:** EPA 8260  
**Description:** 8260 MSV  
**Client:** RMT - GREENVILLE  
**Date:** April 16, 2010

**General Information:**

16 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

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**Method:** EPA 300.0  
**Description:** 300.0 IC Anions 28 Days  
**Client:** RMT - GREENVILLE  
**Date:** April 16, 2010

**General Information:**

15 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

Laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace Project No.: 4030145

Sample: A-7 Lab ID: 4030145001 Collected: 03/26/10 12:10 Received: 04/02/10 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	3080	ug/L	5.0	0.12	1		04/08/10 21:54	7439-96-5	P6
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	5.0J	ug/L	20.0	5.0	1		04/07/10 14:20	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		04/07/10 14:20	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		04/07/10 14:20	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		04/07/10 14:20	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		04/07/10 14:20	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		04/07/10 14:20	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		04/07/10 14:20	75-34-3	
1,2-Dichloroethane	2.3	ug/L	1.0	0.36	1		04/07/10 14:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		04/07/10 14:20	75-35-4	
cis-1,2-Dichloroethene	7.6	ug/L	1.0	0.83	1		04/07/10 14:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		04/07/10 14:20	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		04/07/10 14:20	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		04/07/10 14:20	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		04/07/10 14:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		04/07/10 14:20	79-00-5	
1,1,2,2-Tetrachloroethane	1.2	ug/L	1.0	0.48	1		04/07/10 14:20	79-01-6	
Vinyl chloride	5.9	ug/L	1.0	0.18	1		04/07/10 14:20	75-01-4	
4-Bromofluorobenzene (S)	82	%-	70-130		1		04/07/10 14:20	460-00-4	
Dibromofluoromethane (S)	81	%-	70-130		1		04/07/10 14:20	1868-53-7	
Toluene-d8 (S)	80	%-	70-130		1		04/07/10 14:20	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	4.7	mg/L	4.0	2.0	1		04/13/10 13:21	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

Sample: BW-108		Lab ID: 4030145002	Collected: 03/26/10 14:30	Received: 04/02/10 10:00	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved		Analytical Method: EPA 6010							
Manganese, Dissolved	108 ug/L		5.0	0.12	1		04/08/10 22:05	7439-96-5	
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L		20.0	5.0	1		04/07/10 18:12	67-64-1	
Benzene	ND ug/L		1.0	0.41	1		04/07/10 18:12	71-43-2	
2-Butanone (MEK)	ND ug/L		20.0	4.3	1		04/07/10 18:12	78-93-3	
Chloroethane	ND ug/L		1.0	0.97	1		04/07/10 18:12	75-00-3	
Chloroform	ND ug/L		5.0	1.3	1		04/07/10 18:12	67-66-3	
Chloromethane	ND ug/L		1.0	0.24	1		04/07/10 18:12	74-87-3	
1,1-Dichloroethane	ND ug/L		1.0	0.75	1		04/07/10 18:12	75-34-3	
1,2-Dichloroethane	ND ug/L		1.0	0.36	1		04/07/10 18:12	107-06-2	
1,1-Dichloroethene	ND ug/L		1.0	0.57	1		04/07/10 18:12	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		1.0	0.83	1		04/07/10 18:12	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		1.0	0.89	1		04/07/10 18:12	156-60-5	
Methylene Chloride	ND ug/L		1.0	0.43	1		04/07/10 18:12	75-09-2	
Tetrachloroethene	1.3 ug/L		1.0	0.45	1		04/07/10 18:12	127-18-4	
1,1,1-Trichloroethane	ND ug/L		1.0	0.90	1		04/07/10 18:12	71-55-6	
1,1,2-Trichloroethane	ND ug/L		1.0	0.42	1		04/07/10 18:12	79-00-5	
1,1,2-Trichloroethene	1.6 ug/L		1.0	0.48	1		04/07/10 18:12	79-01-6	
Vinyl chloride	ND ug/L		1.0	0.18	1		04/07/10 18:12	75-01-4	
4-Bromofluorobenzene (S)	84 %-		70-130		1		04/07/10 18:12	460-00-4	
Dibromofluoromethane (S)	82 %-		70-130		1		04/07/10 18:12	1868-53-7	
Toluene-d8 (S)	83 %-		70-130		1		04/07/10 18:12	2037-26-5	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	5.6 mg/L		4.0	2.0	1		04/13/10 13:58	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

Sample: SW-108		Lab ID: 4030145003	Collected: 03/26/10 11:40	Received: 04/02/10 10:00	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved		Analytical Method: EPA 6010							
Manganese, Dissolved	16.4	ug/L	5.0	0.12	1		04/08/10 22:09	7439-96-5	
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		04/07/10 14:43	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		04/07/10 14:43	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		04/07/10 14:43	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		04/07/10 14:43	75-00-3	
Chloroform	1.6J	ug/L	5.0	1.3	1		04/07/10 14:43	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		04/07/10 14:43	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		04/07/10 14:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		04/07/10 14:43	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		04/07/10 14:43	75-35-4	
cis-1,2-Dichloroethene	1.7	ug/L	1.0	0.83	1		04/07/10 14:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		04/07/10 14:43	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		04/07/10 14:43	75-09-2	
Tetrachloroethene	20.5	ug/L	1.0	0.45	1		04/07/10 14:43	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		04/07/10 14:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		04/07/10 14:43	79-00-5	
1,1,2,2-Tetrachloroethane	21.0	ug/L	1.0	0.48	1		04/07/10 14:43	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		04/07/10 14:43	75-01-4	
4-Bromofluorobenzene (S)	82	%-	70-130		1		04/07/10 14:43	460-00-4	
Dibromofluoromethane (S)	81	%-	70-130		1		04/07/10 14:43	1868-53-7	
Toluene-d8 (S)	84	%-	70-130		1		04/07/10 14:43	2037-26-5	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	3.1J	mg/L	4.0	2.0	1		04/13/10 14:10	14808-79-8	



## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace Project No.: 4030145

Sample: BW-110 Lab ID: 4030145004 Collected: 03/30/10 09:30 Received: 04/02/10 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	2.7J	ug/L	5.0	0.12	1		04/08/10 22:13	7439-96-5	B
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		04/07/10 15:06	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		04/07/10 15:06	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		04/07/10 15:06	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		04/07/10 15:06	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		04/07/10 15:06	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		04/07/10 15:06	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		04/07/10 15:06	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		04/07/10 15:06	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		04/07/10 15:06	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		04/07/10 15:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		04/07/10 15:06	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		04/07/10 15:06	75-09-2	
Tetrachloroethene	0.47J	ug/L	1.0	0.45	1		04/07/10 15:06	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		04/07/10 15:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		04/07/10 15:06	79-00-5	
1,1,2,2-Tetrachloroethane	1.6	ug/L	1.0	0.48	1		04/07/10 15:06	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		04/07/10 15:06	75-01-4	
4-Bromofluorobenzene (S)	82	%-	70-130		1		04/07/10 15:06	460-00-4	
Dibromofluoromethane (S)	82	%-	70-130		1		04/07/10 15:06	1868-53-7	
Toluene-d8 (S)	83	%-	70-130		1		04/07/10 15:06	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	7.7	mg/L	4.0	2.0	1		04/13/10 14:22	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

Sample: SW-102 Lab ID: 4030145005 Collected: 03/30/10 10:45 Received: 04/02/10 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	3.2J	ug/L	5.0	0.12	1		04/08/10 22:17	7439-96-5	B
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		04/07/10 15:30	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		04/07/10 15:30	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		04/07/10 15:30	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		04/07/10 15:30	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		04/07/10 15:30	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		04/07/10 15:30	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		04/07/10 15:30	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		04/07/10 15:30	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		04/07/10 15:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		04/07/10 15:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		04/07/10 15:30	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		04/07/10 15:30	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		04/07/10 15:30	127-18-4	
1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		04/07/10 15:30	71-55-6	
1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		04/07/10 15:30	79-00-5	
1,1,2-Trichloroethene	0.54J	ug/L	1.0	0.48	1		04/07/10 15:30	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		04/07/10 15:30	75-01-4	
4-Bromofluorobenzene (S)	81	%-	70-130		1		04/07/10 15:30	460-00-4	
Dibromofluoromethane (S)	81	%-	70-130		1		04/07/10 15:30	1868-53-7	
Toluene-d8 (S)	84	%-	70-130		1		04/07/10 15:30	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	4.4	mg/L	4.0	2.0	1		04/13/10 14:34	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

Sample: SW-103 Lab ID: 4030145006 Collected: 03/30/10 11:40 Received: 04/02/10 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	33.7	ug/L	5.0	0.12	1		04/08/10 22:21	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		04/07/10 15:53	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		04/07/10 15:53	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		04/07/10 15:53	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		04/07/10 15:53	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		04/07/10 15:53	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		04/07/10 15:53	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		04/07/10 15:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		04/07/10 15:53	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		04/07/10 15:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		04/07/10 15:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		04/07/10 15:53	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		04/07/10 15:53	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		04/07/10 15:53	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		04/07/10 15:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		04/07/10 15:53	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.48	1		04/07/10 15:53	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		04/07/10 15:53	75-01-4	
4-Bromofluorobenzene (S)	81	%-	70-130		1		04/07/10 15:53	460-00-4	
Dibromofluoromethane (S)	82	%-	70-130		1		04/07/10 15:53	1868-53-7	
Toluene-d8 (S)	76	%-	70-130		1		04/07/10 15:53	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	ND	mg/L	4.0	2.0	1		04/13/10 14:47	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace-Project No.: 4030145

Sample: SW-109		Lab ID: 4030145007		Collected: 03/30/10 14:50		Received: 04/02/10 10:00		Matrix: Water	
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010:MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	17.0	ug/L	5.0	0.12	1		04/08/10 22:33	7439-96-5	
<b>8260:MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		04/07/10 18:36	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		04/07/10 18:36	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		04/07/10 18:36	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		04/07/10 18:36	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		04/07/10 18:36	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		04/07/10 18:36	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		04/07/10 18:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		04/07/10 18:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		04/07/10 18:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		04/07/10 18:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		04/07/10 18:36	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		04/07/10 18:36	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		04/07/10 18:36	127-18-4	
1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		04/07/10 18:36	71-55-6	
1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		04/07/10 18:36	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.48	1		04/07/10 18:36	79-01-6	
Vinylchloride	ND	ug/L	1.0	0.18	1		04/07/10 18:36	75-01-4	
4-Bromofluorobenzene (S)	82	%-	70-130		1		04/07/10 18:36	460-00-4	
Dibromofluoromethane (S)	83	%-	70-130		1		04/07/10 18:36	1868-53-7	
Toluene-d8 (S)	75	%-	70-130		1		04/07/10 18:36	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	2.1J	mg/L	4.0	2.0	1		04/13/10 14:59	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

Sample: BW-109 Lab ID: 4030145008 Collected: 03/30/10 14:20 Received: 04/02/10 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	0.69J	ug/L	5.0	0.12	1		04/08/10 22:37	7439-96-5	B
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		04/07/10 16:16	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		04/07/10 16:16	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		04/07/10 16:16	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		04/07/10 16:16	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		04/07/10 16:16	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		04/07/10 16:16	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		04/07/10 16:16	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		04/07/10 16:16	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		04/07/10 16:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		04/07/10 16:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		04/07/10 16:16	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		04/07/10 16:16	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		04/07/10 16:16	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		04/07/10 16:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		04/07/10 16:16	79-00-5	
1,1,2-Trichloroethene	ND	ug/L	1.0	0.48	1		04/07/10 16:16	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		04/07/10 16:16	75-01-4	
4-Bromofluorobenzene (S)	83	%-	70-130		1		04/07/10 16:16	460-00-4	
Dibromofluoromethane (S)	80	%-	70-130		1		04/07/10 16:16	1868-53-7	
Toluene-d8 (S)	84	%-	70-130		1		04/07/10 16:16	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	2.2J	mg/L	4.0	2.0	1		04/13/10 15:11	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace Project No.: 4030145

Sample: SW-104		Lab ID: 4030145009	Collected: 03/30/10 16:20	Received: 04/02/10 10:00	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	<b>4.6J</b>	ug/L	5.0	0.12	1		04/08/10 22:41	7439-96-5	B
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	5.0	1		04/07/10 16:39	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		04/07/10 16:39	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		04/07/10 16:39	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		04/07/10 16:39	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		04/07/10 16:39	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		04/07/10 16:39	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		04/07/10 16:39	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		04/07/10 16:39	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		04/07/10 16:39	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		04/07/10 16:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		04/07/10 16:39	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		04/07/10 16:39	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		04/07/10 16:39	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		04/07/10 16:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		04/07/10 16:39	79-00-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.48	1		04/07/10 16:39	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		04/07/10 16:39	75-01-4	
4-Bromofluorobenzene (S)	81	%-	70-130		1		04/07/10 16:39	460-00-4	
Dibromofluoromethane (S)	83	%-	70-130		1		04/07/10 16:39	1868-53-7	
Toluene-d8 (S)	83	%-	70-130		1		04/07/10 16:39	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	<b>3.4J</b>	mg/L	4.0	2.0	1		04/12/10 23:55	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

Sample: BW-202		Lab ID: 4030145010	Collected: 03/31/10 09:40	Received: 04/02/10 10:00	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Manganese, Dissolved	23.2 ug/L		5.0	0.12	1		04/08/10 22:45	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Acetone	ND ug/L		20.0	5.0	1		04/07/10 17:03	67-64-1	
Benzene	ND ug/L		1.0	0.41	1		04/07/10 17:03	71-43-2	
2-Butanone (MEK)	ND ug/L		20.0	4.3	1		04/07/10 17:03	78-93-3	
Chloroethane	ND ug/L		1.0	0.97	1		04/07/10 17:03	75-00-3	
Chloroform	ND ug/L		5.0	1.3	1		04/07/10 17:03	67-66-3	
Chloromethane	ND ug/L		1.0	0.24	1		04/07/10 17:03	74-87-3	
1,1-Dichloroethane	ND ug/L		1.0	0.75	1		04/07/10 17:03	75-34-3	
1,2-Dichloroethane	ND ug/L		1.0	0.36	1		04/07/10 17:03	107-06-2	
1,1-Dichloroethene	ND ug/L		1.0	0.57	1		04/07/10 17:03	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		1.0	0.83	1		04/07/10 17:03	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		1.0	0.89	1		04/07/10 17:03	156-60-5	
Methylene Chloride	ND ug/L		1.0	0.43	1		04/07/10 17:03	75-09-2	
Tetrachloroethene	9.1 ug/L		1.0	0.45	1		04/07/10 17:03	127-18-4	
1,1-Trichloroethane	ND ug/L		1.0	0.90	1		04/07/10 17:03	71-55-6	
1,2-Trichloroethane	ND ug/L		1.0	0.42	1		04/07/10 17:03	79-00-5	
1,1,2-Trichloroethene	4.6 ug/L		1.0	0.48	1		04/07/10 17:03	79-01-6	
Vinyl chloride	ND ug/L		1.0	0.18	1		04/07/10 17:03	75-01-4	
4-Bromofluorobenzene (S)	83 %-		70-130		1		04/07/10 17:03	460-00-4	
Dibromofluoromethane (S)	84 %-		70-130		1		04/07/10 17:03	1868-53-7	
Toluene-d8 (S)	84 %-		70-130		1		04/07/10 17:03	2037-26-5	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Sulfate	4.4 mg/L		4.0	2.0	1		04/13/10 00:08	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

Sample: SW-3		Lab ID: 4030145011	Collected: 03/31/10 10:40	Received: 04/02/10 10:00	Matrix: Water				
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved		Analytical Method: EPA 6010							
Manganese, Dissolved	103	ug/L	5.0	0.12	1		04/08/10 22:49	7439-96-5	
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	50.0	12.5	2.5		04/07/10 19:22	67-64-1	
Benzene	ND	ug/L	2.5	1.0	2.5		04/07/10 19:22	71-43-2	
2-Butanone (MEK)	ND	ug/L	50.0	10.8	2.5		04/07/10 19:22	78-93-3	
Chloroethane	ND	ug/L	2.5	2.4	2.5		04/07/10 19:22	75-00-3	
Chloroform	ND	ug/L	12.5	3.2	2.5		04/07/10 19:22	67-66-3	
Chloromethane	ND	ug/L	2.5	0.60	2.5		04/07/10 19:22	74-87-3	
1,1-Dichloroethane	ND	ug/L	2.5	1.9	2.5		04/07/10 19:22	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.5	0.90	2.5		04/07/10 19:22	107-06-2	
1,1-Dichloroethene	ND	ug/L	2.5	1.4	2.5		04/07/10 19:22	75-35-4	
cis-1,2-Dichloroethene	3.2	ug/L	2.5	2.1	2.5		04/07/10 19:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.5	2.2	2.5		04/07/10 19:22	156-60-5	
Methylene Chloride	ND	ug/L	2.5	1.1	2.5		04/07/10 19:22	75-09-2	
Tetrachloroethene	363	ug/L	2.5	1.1	2.5		04/07/10 19:22	127-18-4	
1,1-Trichloroethane	ND	ug/L	2.5	2.2	2.5		04/07/10 19:22	71-55-6	
1,2-Trichloroethane	ND	ug/L	2.5	1.0	2.5		04/07/10 19:22	79-00-5	
1,1,1-Trichloroethene	194	ug/L	2.5	1.2	2.5		04/07/10 19:22	79-01-6	
Vinyl chloride	ND	ug/L	2.5	0.45	2.5		04/07/10 19:22	75-01-4	
4-Bromofluorobenzene (S)	84	%-	70-130		2.5		04/07/10 19:22	460-00-4	
Dibromofluoromethane (S)	83	%-	70-130		2.5		04/07/10 19:22	1868-53-7	
Toluene-d8 (S)	75	%-	70-130		2.5		04/07/10 19:22	2037-26-5	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Sulfate	2.1J	mg/L	4.0	2.0	1		04/13/10 17:02	14808-79-8	



## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace Project No.: 4030145

Sample: MW-3D Lab ID: 4030145012 Collected: 03/31/10 11:30 Received: 04/02/10 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	2740	ug/L	5.0	0.12	1		04/08/10 22:53	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		04/08/10 08:04	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		04/08/10 08:04	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		04/08/10 08:04	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		04/08/10 08:04	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		04/08/10 08:04	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		04/08/10 08:04	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		04/08/10 08:04	75-34-3	
1,2-Dichloroethane	1.2	ug/L	1.0	0.36	1		04/08/10 08:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		04/08/10 08:04	75-35-4	
cis-1,2-Dichloroethene	10.3	ug/L	1.0	0.83	1		04/08/10 08:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		04/08/10 08:04	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		04/08/10 08:04	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		04/08/10 08:04	127-18-4	
* 1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		04/08/10 08:04	71-55-6	
1,1,2-Trichloroethane	0.64J	ug/L	1.0	0.42	1		04/08/10 08:04	79-00-5	
1,1,2-Trichloroethene	2.4	ug/L	1.0	0.48	1		04/08/10 08:04	79-01-6	
Vinyl chloride	11.4	ug/L	1.0	0.18	1		04/08/10 08:04	75-01-4	
4-Bromofluorobenzene (S)	79	%-	70-130		1		04/08/10 08:04	460-00-4	
Dibromofluoromethane (S)	82	%-	70-130		1		04/08/10 08:04	1868-53-7	
Toluene-d8 (S)	86	%-	70-130		1		04/08/10 08:04	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	7.5	mg/L	4.0	2.0	1		04/13/10 17:14	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace Project No.: 4030145

**Sample: BW-1**      **Lab ID: 4030145013**      Collected: 03/31/10 14:30      Received: 04/02/10 10:00      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	776	ug/L	5.0	0.12	1		04/08/10 22:57	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		04/07/10 17:26	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		04/07/10 17:26	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		04/07/10 17:26	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		04/07/10 17:26	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		04/07/10 17:26	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		04/07/10 17:26	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		04/07/10 17:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		04/07/10 17:26	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		04/07/10 17:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		04/07/10 17:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		04/07/10 17:26	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		04/07/10 17:26	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		04/07/10 17:26	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		04/07/10 17:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		04/07/10 17:26	79-00-5	
1,1,2-Trichloroethene	ND	ug/L	1.0	0.48	1		04/07/10 17:26	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		04/07/10 17:26	75-01-4	
4-Bromofluorobenzene (S)	86	%-	70-130		1		04/07/10 17:26	460-00-4	
Dibromofluoromethane (S)	82	%-	70-130		1		04/07/10 17:26	1868-53-7	
Toluene-d8 (S)	84	%-	70-130		1		04/07/10 17:26	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	2.2J	mg/L	4.0	2.0	1		04/13/10 17:50	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace Project No.: 4030145

Sample: SW-1 Lab ID: 4030145014 Collected: 03/31/10 13:40 Received: 04/02/10 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	8.3	ug/L	5.0	0.12	1		04/08/10 23:01	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		04/07/10 17:49	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		04/07/10 17:49	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		04/07/10 17:49	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		04/07/10 17:49	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		04/07/10 17:49	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		04/07/10 17:49	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		04/07/10 17:49	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		04/07/10 17:49	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		04/07/10 17:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		04/07/10 17:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		04/07/10 17:49	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		04/07/10 17:49	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		04/07/10 17:49	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		04/07/10 17:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		04/07/10 17:49	79-00-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.48	1		04/07/10 17:49	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		04/07/10 17:49	75-01-4	
4-Bromofluorobenzene (S)	80	%-	70-130		1		04/07/10 17:49	460-00-4	
Dibromofluoromethane (S)	82	%-	70-130		1		04/07/10 17:49	1868-53-7	
Toluene-d8 (S)	81	%-	70-130		1		04/07/10 17:49	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	ND	mg/L	4.0	2.0	1		04/13/10 18:03	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

Sample: DU-10103 Lab ID: 4030145015 Collected: 03/31/10 00:00 Received: 04/02/10 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Manganese, Dissolved	2740	ug/L	5.0	0.12	1		04/08/10 23:05	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		04/07/10 18:59	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		04/07/10 18:59	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		04/07/10 18:59	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		04/07/10 18:59	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		04/07/10 18:59	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		04/07/10 18:59	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		04/07/10 18:59	75-34-3	
1,2-Dichloroethane	1.4	ug/L	1.0	0.36	1		04/07/10 18:59	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		04/07/10 18:59	75-35-4	
cis-1,2-Dichloroethene	11.0	ug/L	1.0	0.83	1		04/07/10 18:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		04/07/10 18:59	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		04/07/10 18:59	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		04/07/10 18:59	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		04/07/10 18:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		04/07/10 18:59	79-00-5	
Trichloroethene	2.3	ug/L	1.0	0.48	1		04/07/10 18:59	79-01-6	
Vinyl chloride	12.3	ug/L	1.0	0.18	1		04/07/10 18:59	75-01-4	
4-Bromofluorobenzene (S)	83	%-	70-130		1		04/07/10 18:59	460-00-4	
Dibromofluoromethane (S)	84	%-	70-130		1		04/07/10 18:59	1868-53-7	
Toluene-d8 (S)	83	%-	70-130		1		04/07/10 18:59	2037-26-5	
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Sulfate	7.7	mg/L	4.0	2.0	1		04/13/10 18:15	14808-79-8	

## ANALYTICAL RESULTS

Project: 71243.61 MEDLEY FARMS

Pace Project No.: 4030145

Sample: TBLK-10104 Lab ID: 4030145016 Collected: 03/31/10 00:00 Received: 04/02/10 10:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Acetone	ND	ug/L	20.0	5.0	1		04/07/10 13:56	67-64-1	
Benzene	ND	ug/L	1.0	0.41	1		04/07/10 13:56	71-43-2	
2-Butanone (MEK)	ND	ug/L	20.0	4.3	1		04/07/10 13:56	78-93-3	
Chloroethane	ND	ug/L	1.0	0.97	1		04/07/10 13:56	75-00-3	
Chloroform	ND	ug/L	5.0	1.3	1		04/07/10 13:56	67-66-3	
Chloromethane	ND	ug/L	1.0	0.24	1		04/07/10 13:56	74-87-3	
1,1-Dichloroethane	ND	ug/L	1.0	0.75	1		04/07/10 13:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.36	1		04/07/10 13:56	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.57	1		04/07/10 13:56	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.83	1		04/07/10 13:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.89	1		04/07/10 13:56	156-60-5	
Methylene Chloride	ND	ug/L	1.0	0.43	1		04/07/10 13:56	75-09-2	
Tetrachloroethene	ND	ug/L	1.0	0.45	1		04/07/10 13:56	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.90	1		04/07/10 13:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.42	1		04/07/10 13:56	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.48	1		04/07/10 13:56	79-01-6	
Vinyl chloride	ND	ug/L	1.0	0.18	1		04/07/10 13:56	75-01-4	
Bromofluorobenzene (S)	83	%-	70-130		1		04/07/10 13:56	460-00-4	
Bromofluoromethane (S)	78	%-	70-130		1		04/07/10 13:56	1868-53-7	
Toluene-d8 (S)	85	%-	70-130		1		04/07/10 13:56	2037-26-5	

## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

QC Batch:	ICP/3286	Analysis Method:	EPA 6010
QC Batch Method:	EPA 6010	Analysis Description:	ICP Metals, Trace, Dissolved
Associated Lab Samples:	4030145001, 4030145002, 4030145003, 4030145004, 4030145005, 4030145006, 4030145007, 4030145008, 4030145009, 4030145010, 4030145011, 4030145012, 4030145013, 4030145014, 4030145015		

METHOD BLANK:	283697	Matrix:	Water
Associated Lab Samples:	4030145001, 4030145002, 4030145003, 4030145004, 4030145005, 4030145006, 4030145007, 4030145008, 4030145009, 4030145010, 4030145011, 4030145012, 4030145013, 4030145014, 4030145015		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Manganese, Dissolved	ug/L	0.56J	5.0	04/08/10 21:46	

LABORATORY CONTROL SAMPLE: 283698

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	500	480	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 283699 283700

Parameter	Units	4030145001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Manganese, Dissolved	ug/L	3080	500	500	3450	3450	73	74	75-125	.03 20	P6

## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

QC Batch: MSV17427 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
Associated Lab Samples: 4030145001, 4030145002, 4030145003, 4030145004, 4030145005, 4030145006, 4030145007, 4030145008,  
4030145009, 4030145010, 4030145011, 4030145012, 4030145013, 4030145014, 4030145015, 4030145016

METHOD BLANK: 282920 Matrix: Water  
Associated Lab Samples: 4030145001, 4030145002, 4030145003, 4030145004, 4030145005, 4030145006, 4030145007, 4030145008,  
4030145009, 4030145010, 4030145011, 4030145012, 4030145013, 4030145014, 4030145015, 4030145016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	04/07/10 07:27	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/07/10 07:27	
1,1-Dichloroethane	ug/L	ND	1.0	04/07/10 07:27	
1,1-Dichloroethene	ug/L	ND	1.0	04/07/10 07:27	
1,2-Dichloroethane	ug/L	ND	1.0	04/07/10 07:27	
2-Butanone (MEK)	ug/L	ND	20.0	04/07/10 07:27	
Acetone	ug/L	ND	20.0	04/07/10 07:27	
Benzene	ug/L	ND	1.0	04/07/10 07:27	
Chloroethane	ug/L	ND	1.0	04/07/10 07:27	
Chloroform	ug/L	ND	5.0	04/07/10 07:27	
Chloromethane	ug/L	ND	1.0	04/07/10 07:27	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/07/10 07:27	
ethylene Chloride	ug/L	ND	1.0	04/07/10 07:27	
tetrachloroethene	ug/L	ND	1.0	04/07/10 07:27	
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/07/10 07:27	
Trichloroethene	ug/L	ND	1.0	04/07/10 07:27	
Vinyl chloride	ug/L	ND	1.0	04/07/10 07:27	
4-Bromofluorobenzene (S)	%-	80	70-130	04/07/10 07:27	
Dibromofluoromethane (S)	%-	78	70-130	04/07/10 07:27	
Toluene-d8 (S)	%-	85	70-130	04/07/10 07:27	

LABORATORY CONTROL SAMPLE & LCSD: 282921			282922							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	52.8	49.9	106	100	70-132	6	20	
1,1,2-Trichloroethane	ug/L	50	47.1	45.0	94	90	70-130	5	20	
1,1-Dichloroethane	ug/L	50	50.5	47.8	101	96	70-130	5	20	
1,1-Dichloroethene	ug/L	50	47.2	44.4	94	89	70-130	6	20	
1,2-Dichloroethane	ug/L	50	53.2	51.1	106	102	70-134	4	20	
2-Butanone (MEK)	ug/L	50	58.0	45.6	116	91	36-181	24	35	
Acetone	ug/L	50	82.4	65.6	165	131	10-200	23	36	
Benzene	ug/L	50	46.6	43.6	93	87	70-131	7	20	
Chloroethane	ug/L	50	43.9	42.7	88	85	70-136	3	20	
Chloroform	ug/L	50	51.2	48.7	102	97	70-130	5	20	
Chloromethane	ug/L	50	32.2	28.4	64	57	54-148	13	20	
cis-1,2-Dichloroethene	ug/L	50	47.3	45.3	95	91	70-130	4	20	
Methylene Chloride	ug/L	50	47.5	46.2	95	92	66-130	3	20	
Tetrachloroethene	ug/L	50	53.8	52.1	108	104	75-130	3	20	
trans-1,2-Dichloroethene	ug/L	50	44.9	43.7	90	87	70-130	3	20	
Trichloroethene	ug/L	50	53.1	52.9	106	106	70-130	4	20	

Date: 04/16/2010 04:17 PM

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

LABORATORY CONTROL SAMPLE & LCSD: 282921			282922							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Vinyl chloride	ug/L	50	34.2	31.5	68	63	63-141	8	20	
4-Bromofluorobenzene (S)	%-				84	83	70-130			
Dibromofluoromethane (S)	%-				85	82	70-130			
Toluene-d8 (S)	%-				87	84	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 283530			283531									
Parameter	Units	4030193004		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		Result	Conc.	Conc.	Result	Result	% Rec	% Rec	% Rec	RPD	RPD	
1,1,1-Trichloroethane	ug/L	<0.90	50	50	54.7	55.4	109	111	70-137	1	20	
1,1,2-Trichloroethane	ug/L	<0.42	50	50	44.1	45.2	88	90	70-130	2	20	
1,1-Dichloroethane	ug/L	<0.75	50	50	48.9	49.5	98	99	70-130	1	20	
1,1-Dichloroethene	ug/L	<0.57	50	50	47.2	45.0	94	90	70-130	5	20	
1,2-Dichloroethane	ug/L	<0.36	50	50	54.4	54.2	109	108	69-134	5	20	
2-Butanone (MEK)	ug/L	<4.3	50	50	44.3	45.0	89	90	36-181	2	35	
Acetone	ug/L	<5.0	50	50	47.9	38.3	96	77	10-200	22	36	
Benzene	ug/L	<0.41	50	50	44.8	45.5	90	91	69-131	1	20	
1,1-Dichloroethane	ug/L	<0.97	50	50	44.1	44.2	88	88	66-136	2	20	
1,1-Dichloroethene	ug/L	<1.3	50	50	51.2	50.9	102	102	70-130	6	20	
Chloromethane	ug/L	<0.24	50	50	29.7	29.6	59	59	54-148	4	20	
cis-1,2-Dichloroethene	ug/L	<0.83	50	50	46.7	45.8	93	92	70-130	2	20	
Methylene Chloride	ug/L	<0.43	50	50	47.3	47.9	95	96	64-130	1	20	
Tetrachloroethene	ug/L	2.6	50	50	57.2	56.1	109	107	70-130	2	20	
trans-1,2-Dichloroethene	ug/L	<0.89	50	50	46.1	44.9	92	90	70-130	3	20	
Trichloroethene	ug/L	2.5	50	50	56.7	56.4	108	108	70-130	5	20	
Vinyl chloride	ug/L	<0.18	50	50	32.5	32.6	65	65	59-141	3	20	
4-Bromofluorobenzene (S)	%-						82	82	70-130			
Dibromofluoromethane (S)	%-						84	84	70-130			
Toluene-d8 (S)	%-						85	83	70-130			



### QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

QC Batch: WETA/6136 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 4030145001, 4030145002, 4030145003, 4030145004, 4030145005, 4030145006, 4030145007, 4030145008, 4030145009, 4030145010

METHOD BLANK: 285352 Matrix: Water  
Associated Lab Samples: 4030145001, 4030145002, 4030145003, 4030145004, 4030145005, 4030145006, 4030145007, 4030145008, 4030145009, 4030145010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	4.0	04/13/10 12:33	

LABORATORY CONTROL SAMPLE: 285353

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	19.1	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 285354 285355

Parameter	Units	4030145001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	4.7	20	20	22.7	22.7	90	90	90-110	.1	20	

## QUALITY CONTROL DATA

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

QC Batch: WETA/6145 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 4030145011, 4030145012, 4030145013, 4030145014, 4030145015

METHOD BLANK: 285823 Matrix: Water  
Associated Lab Samples: 4030145011, 4030145012, 4030145013, 4030145014, 4030145015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	4.0	04/13/10 16:25	

LABORATORY CONTROL SAMPLE: 285824

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	19.4	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 285825 285826

Parameter	Units	4030145012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Sulfate	mg/L	7.5	20	20	26.0	26.1	92	93	90-110	.4	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 285827 285828

Parameter	Units	20774261 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Sulfate	mg/L	41.6	100	100	134	133	92	92	90-110	.5	20

## QUALIFIERS

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 71243.61 MEDLEY FARMS  
Pace Project No.: 4030145

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4030145001	A-7	EPA 6010	ICP/3286		
4030145002	BW-108	EPA 6010	ICP/3286		
4030145003	SW-108	EPA 6010	ICP/3286		
4030145004	BW-110	EPA 6010	ICP/3286		
4030145005	SW-102	EPA 6010	ICP/3286		
4030145006	SW-103	EPA 6010	ICP/3286		
4030145007	SW-109	EPA 6010	ICP/3286		
4030145008	BW-109	EPA 6010	ICP/3286		
4030145009	SW-104	EPA 6010	ICP/3286		
4030145010	BW-202	EPA 6010	ICP/3286		
4030145011	SW-3	EPA 6010	ICP/3286		
4030145012	MW-3D	EPA 6010	ICP/3286		
4030145013	BW-1	EPA 6010	ICP/3286		
4030145014	SW-1	EPA 6010	ICP/3286		
4030145015	DU-10103	EPA 6010	ICP/3286		
4030145001	A-7	EPA 8260	MSV/7427		
4030145002	BW-108	EPA 8260	MSV/7427		
4030145003	SW-108	EPA 8260	MSV/7427		
4030145004	BW-110	EPA 8260	MSV/7427		
4030145005	SW-102	EPA 8260	MSV/7427		
4030145006	SW-103	EPA 8260	MSV/7427		
4030145007	SW-109	EPA 8260	MSV/7427		
4030145008	BW-109	EPA 8260	MSV/7427		
4030145009	SW-104	EPA 8260	MSV/7427		
4030145010	BW-202	EPA 8260	MSV/7427		
4030145011	SW-3	EPA 8260	MSV/7427		
4030145012	MW-3D	EPA 8260	MSV/7427		
4030145013	BW-1	EPA 8260	MSV/7427		
4030145014	SW-1	EPA 8260	MSV/7427		
4030145015	DU-10103	EPA 8260	MSV/7427		
4030145016	TBLK-10104	EPA 8260	MSV/7427		
4030145001	A-7	EPA 300.0	WETA/6136		
4030145002	BW-108	EPA 300.0	WETA/6136		
4030145003	SW-108	EPA 300.0	WETA/6136		
4030145004	BW-110	EPA 300.0	WETA/6136		
4030145005	SW-102	EPA 300.0	WETA/6136		
4030145006	SW-103	EPA 300.0	WETA/6136		
4030145007	SW-109	EPA 300.0	WETA/6136		
4030145008	BW-109	EPA 300.0	WETA/6136		
4030145009	SW-104	EPA 300.0	WETA/6136		
4030145010	BW-202	EPA 300.0	WETA/6136		
4030145011	SW-3	EPA 300.0	WETA/6145		
4030145012	MW-3D	EPA 300.0	WETA/6145		
4030145013	BW-1	EPA 300.0	WETA/6145		
4030145014	SW-1	EPA 300.0	WETA/6145		
4030145015	DU-10103	EPA 300.0	WETA/6145		



## CHAIN OF CUSTODY RECORD

30 Patewood Drive, Suite 100, Patewood Plaza One, Greenville, SC 29615-3535  
Phone 864/281-0030 • Fax 864/281-0288

Project No. 71243.61		Project/Client Medley		Total Number of Containers	MATRIX	Analyses Requested										Comments:	
Project Manager/Contact Person: S. Webb / L. Clark		Preserved (Code)															
Lab No.	Yr. ID Date	Time	Sample Station ID			Filtered (Yes/No)	Preserved (Code)	Analyses Requested	Analyses Requested	Analyses Requested	Analyses Requested	Analyses Requested	Analyses Requested	Analyses Requested	Analyses Requested	Analyses Requested	Analyses Requested
001	3/24	1210	A-7	5	GW	3	1	1									2-250ml AD 3-40ml B
002	3/24	1430	BW-108														
003	3/24	1140	SW-108														
004	3/30	0930	BW-110														
005		1045	SW-102														
006		1140	SW-103														
007		1450	SW-109														
008		1420	BW-109														
009	3/30	1620	SW-104	5	GW	3	1	1									
010	3/31	0940	BW-202	5	GW	3	1	1									

## SPECIAL INSTRUCTIONS

SAMPLER Relinquished by (Signature) Date/Time		Received by (Signature) Date/Time		HAZARDS ASSOCIATED WITH SAMPLES <input type="checkbox"/> Flammable <input type="checkbox"/> Corrosive <input type="checkbox"/> Highly Toxic <input type="checkbox"/> Other (list)	Turn Around (circle one) Normal Rush		
4-1-10 1600		4-1-10 1600			Report Due		
4/2/10 1000		4/2/10 1000			(For Lab Use Only)		
Relinquished by (Signature) Date/Time		Received by (Signature) Date/Time		Receipt Temp: Temp Blank (Y) N		Receipt pH (Wet/Metals)	
4/2/10 1000		4/2/10 1000		1.52		OK	
Custody Seal: Present/Absent Intact/Not Intact Seal #s							



**PROJECT WORK ORDER**  
**Medley Farm - March 2010**

Project: Medley Farm  
 Project Number: 71243.61  
 Sample Date: March 8 - 23, 2010  
 Turnaround Time: Standard  
 Detection Limit: Federal DW MCL where applicable  
 QC Package: Level 2  
 RMT format EDD required.

Laboratory: Microseeps  
 220 William Pitt Way  
 Pittsburgh, PA 15238  
 Ph: (412) 826-5245 Fax: (412) 826-3433  
 Contact: Debbie Hallo or Becky Hand

Project Manager: Steve Webb  
 Project Contact: Terry Hertz/Lisa Clark  
 Laboratory: Pace - Green Bay, WI  
 1241 Bellevue St.  
 Greenbay, WI 54302  
 Ph: 1-800-7-ENCHEM Fax: 920-469-8827  
 Contact: Kang Khang

MCL reporting (NOT MDL unless needed for MCL); "J" flagging; no SIM.

Analyte	VOCs	Field Measured Dissolved Ferrous Iron	Dissolved Manganese	Sulfate	Volatiles Fatty Acids	FIELD MEAS SHEDD-O-R Temp Spec Cond	COMMENTS
Method	320B	FieldKit	6010B	3010	AM210		
Bottle	A	B	C	D	E		
Sample ID							Measure water levels on all wells.
A-1	x	x	x	x	x	x	
A-2	x	x	x	x	x	x	No MS/MSD
A-3	x	x	x	x	x	x	
A-4	x	x	x	x	x	x	*Special Volatiles List
A-5	x	x	x	x	x	x	Acetone
A-6	x	x	x	x	x	x	Benzene
A-7	x	x	x	x	x	x	2-Butanone
B-1	x	x	x	x	x	x	Chloroform
B-2	x	x	x	x	x	x	Chloroethane
B-3	x	x	x	x	x	x	Chloromethane
B-4	x	x	x	x	x	x	1,1-Dichloroethane
BW-1	x	x	x	x	x	x	1,2-Dichloroethane
BW-2	x	x	x	x	x	x	1,1-Dichloroethene
BW-3	x	x	x	x	x	x	cis-1,2-Dichloroethene
BW-4	x	x	x	x	x	x	trans-1,2-dichloroethene
BW-105	x	x	x	x	x	x	Methylene chloride
BW-106	x	x	x	x	x	x	Tetrachloroethene
BW-108	x	x	x	x	x	x	Trichloroethene
BW-109	x	x	x	x	x	x	1,1,1-Trichloroethane
BW-110	x	x	x	x	x	x	1,1,2-Trichloroethane
BW-111	x	x	x	x	x	x	Vinyl chloride
BW-201	x	x	x	x	x	x	
BW-202	x	x	x	x	x	x	Volatile Fatty Acids are to be sent to Microseeps.
DP-2-1	x	x	x	x	x	x	
DP-3-1	x	x	x	x	x	x	Bring filters to field for dissolved ferrous iron.
DP-3-2	x	x	x	x	x	x	
MLW-1-1	x	x	x	x	x	x	
MLW-1-2	x	x	x	x	x	x	

# PROJECT WORK ORDER

Medley Farm - March 2010

Project: Medley Farm

Project Number: 71243.61

Sample Date: March 8 - 23, 2010

Turnaround Time: Standard

Detection Limit: Federal DW MCL where applicable

QC Package: Level 2

RMT format EDD required.

Laboratory: Microseeps

220 William Pitt Way

Pittsburgh, PA 15238

Ph: (412) 826-5245 Fax: (412) 826-3433

Contact: Debbie Hallo or Becky Hand

Project Manager: Steve Webb

Project Contact: Terry Hertz/Lisa Clark

Laboratory: Pace - Green Bay, WI

1241 Bellevue St.

Greenbay, WI 54302

Ph: 1-800-7-ENCHIEM Fax: 920-469-5827

Contact: Kang Khang

MCL reporting (NOT MDL unless needed for MCL); "J" flagging; no SLM.

Analyte	VOC	Field Measured Dissolved Ferrous Iron	Dissolved Manganese	Sulfate	Volatiles Addg	FIELD MEAS PH, DO, ORP, Temp, Spec Cond	COMMENTS
Method	3260B	FieldKit	6010B	3000	AM21G		
Bottle	A	B	C	D	E		
Sample ID							Measure water levels on all wells.
MLW-1-3	X	X	X	X	X	X	
MLW-1-4	X	X	X	X	X	X	
MLW-3-1	X	X	X	X	X	X	
MLW-3-2	X	X	X	X	X	X	
MLW-3-3	X	X	X	X	X	X	
MLW-3-4	X	X	X	X	X	X	
MW-3D	X	X	X	X	X	X	
MW-2-1	X	X	X	X	X	X	
MW-2-2	X	X	X	X	X	X	
MW-4-1	X	X	X	X	X	X	
MW-4-2	X	X	X	X	X	X	
SW-101	X	X	X	X	X	X	
SW-102	X	X	X	X	X	X	
SW-103	X	X	X	X	X	X	
SW-104	X	X	X	X	X	X	
SW-106	X	X	X	X	X	X	
SW-108	X	X	X	X	X	X	
SW-109	X	X	X	X	X	X	
SW-201	X	X	X	X	X	X	
SW-202	X	X	X	X	X	X	
SW-1	X	X	X	X	X	X	
SW-3	X	X	X	X	X	X	
SW-4	X	X	X	X	X	X	
SWS-1	X					X	
SWS-2	X					X	
SWS-3	X					X	
DU-10101	X		X	X	X		collect from groundwater, NOT surface water
DU-10102	X		X	X	X		collect from groundwater, NOT surface water
DU-10103	X		X	X	X		collect from groundwater, NOT surface water
FBLK-10101	X	X	X	X	X		



**PROJECT WORK ORDER  
Medley Farm - March 2010**

Project: Medley Farm  
Project Number: 71243.61  
Sample Date: March 8 - 23, 2010  
Turnaround Time: Standard  
Detection Limit: Federal DW MCL where applicable  
QC Package: Level 2  
RMT format EDD required.

Laboratory: Microseeps  
220 William Pitt Way  
Pittsburgh, PA 15238  
Ph: (412) 826-5245 Fax: (412) 826-3433  
Contact: Debbie Hallo or Becky Hand

Project Manager: Steve Webb  
Project Contact: Terry Hertz/Lisa Clark  
Laboratory: Pace - Green Bay, WI  
1241 Bellevue St.  
Greenbay, WI 54302  
Ph: 1-800-7-ENCHEM Fax: 920-469-8827  
Contact: Kang Khang

MCL reporting (NOT MDL unless needed for MCL); "J" flagging; no SIM.

Analyte	VOCS	Field Measured Dissolved Ferrous Iron	Dissolved Manganese	Sulfate	Volatile Fatty Acids	FIELD MEAS pH, DO, ORP, Temp, Spec Cond	COMMENTS
Method	3250B	field kit	3010B	3000	AM210		
Bottle	A	B	C	D	E		
Sample ID							Measure water levels on all wells.
RBLK-10101	X	X	X	X	X		
TBLK-10101	X						
TBLK-10102	X						
TBLK-10103	X						
TBLK-10104	X						
TBLK-10105	X						
TBLK-10106	X						

A - VOCs: three 40 mL septum vials; HCl preservative; ice; HT - 14 days

B - Dissolved Ferrous Iron: Chemetrics field test kit; HT - ASAP

C - Dissolved Manganese: one 125 mL plastic; HNO<sub>3</sub> to pH<2; ice; HT - 6 months

D - Sulfate: one 500 mL plastic; no preservative; ice; HT - 28 days; 14 days

E - Volatile Fatty Acids: two 40 mL clear; no preservative; ice; HT - preferred 14 day



## Sample Condition Upon Receipt

Pace Analytical Services, Inc.  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302

Client Name: PMT

Project # 4030145

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other \_\_\_\_\_

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None Other \_\_\_\_\_

Thermometer Used 90

Type of Ice: ☒ Wet ☐ Blue Dry None ☐ Samples on ice, cooling process has begun

Cooler Temperature 1.5°C

Biological Tissue is Frozen: ☐ yes

Temp Blank Present: ☒ yes ☐ no

☐ no

Temp should be above freezing to 6°C for all sample except Biota.

Biota Samples should be received  $\leq 0^{\circ}\text{C}$ .

Comments:

Person examining contents:

Date: 4/5/10

Initials: AE

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
ace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <u>AE</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: me

Date: 4/5/10

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

Page: Page 1 of 18  
Lab Proj #: P1004044  
Report Date: 05/03/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

### Laboratory Results

Total pages in data package: 21

<u>Lab Sample #</u>	<u>Client Sample ID</u>
P1004044-01	A-7
P1004044-02	BW-108
P1004044-03	SW-108
P1004044-04	BW-110
P1004044-05	SW-102
P1004044-06	SW-103
P1004044-07	SW-109
P1004044-08	BW-109
P1004044-09	SW-104
P1004044-10	BW-202
P1004044-11	SW-3
P1004044-12	MW-3D
P1004044-13	BW-1
P1004044-14	SW-1
P1004044-15	DU-10103

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By:

*Debbie Hallo*

Date:

*5-3-10*

Project Manager:

Debbie Hallo

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

*As a valued client we would appreciate your comments on our service.  
Please call customer service at (412)826-5245 or email customerservice@microseeps.com.*

CoC-SIGNED; TEMP-OK; HT- ALL ANALYSES PERFORMED OUTSIDE OF  
HOLD TIME.

MBLK - CLEAN

LCS - RECS OK

MS/MSD - RECS + RPDs OK;  
DU-10103 USED FOR  
MS/MSD.



DUP - DU-10103 IS A FIELD DUPLICATE OF MW-3D. NO DETECTIONS IN  
PARENT OR DUPLICATE, SO RPD NOT CALCULATED

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

Page: Page 1 of 18  
Lab Proj #: P1004044  
Report Date: 05/03/10  
Client Proj Name: Medley Farm  
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### Laboratory Results

Total pages in data package: 21

Lab Sample #	Client Sample ID
P1004044-01	A-7
P1004044-02	BW-108
P1004044-03	SW-108
P1004044-04	BW-110
P1004044-05	SW-102
P1004044-06	SW-103
P1004044-07	SW-109
P1004044-08	BW-109
P1004044-09	SW-104
P1004044-10	BW-202
P1004044-11	SW-3
P1004044-12	MW-3D
P1004044-13	BW-1
P1004044-14	SW-1
P1004044-15	DU-10103

BECAUSE OF MISSED HOLD TIMES,  
ALL NON-DETECT RESULTS FOR SAMPLES  
IN THIS DATA PACKAGE ARE ASSIGNED  
A "u" FLAG, AND  
ALL DETECTIONS FOR SAMPLES IN THIS  
DATA PACKAGE ARE ASSIGNED A "j" FLAG.

5/27 5/3/10

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By: \_\_\_\_\_

*Debbie Hallo*

Date: \_\_\_\_\_

5-3-10

Project Manager: \_\_\_\_\_

Debbie Hallo

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

As a valued client we would appreciate your comments on our service.  
Please call customer service at (412)826-5245 or email customerservice@microseeps.com.

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

Page: Page 2 of 18  
Lab Proj #: P1004044  
Report Date: 05/03/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

**Case Narrative:** The analyses were performed outside of the holding times



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
 Suite 100  
 30 Patewood Drive  
 Greenville, SC 29615-3535

Page: Page 3 of 18  
 Lab Proj #: P1004044  
 Report Date: 05/03/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
A-7	Water	P1004044-01	26 Mar. 10 12:10	02 Apr. 10 14:59			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid	J	1	1.0	mg/L	AM21G	4/29/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/29/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/29/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/29/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/29/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
Greenville, SC 29615-3535

Page: Page 4 of 18  
Lab Proj #: P1004044  
Report Date: 05/03/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
BW-108	Water	P1004044-02	26 Mar. 10 14:30	02 Apr. 10 14:59			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid		1.1	1.0	mg/L	AM21G	4/29/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/29/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/29/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/29/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/29/10	td



Data Qualifiers: J - estimated value, U - Non-detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

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Page: Page 5 of 18  
Lab Proj #: P1004044  
Report Date: 05/03/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
SW-108	Water	P1004044-03	26 Mar. 10 11:40	02 Apr. 10 14:59			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/29/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/29/10	td
N Lactic Acid	J	11.0	25.0	mg/L	AM21G	4/29/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/29/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/29/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis



Client Name: RMT, Inc.  
Contact: Steve Webb  
Address: Patewood Plaza One  
Suite 100  
30 Patewood Drive  
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Lab Proj #: P1004044  
Report Date: 05/03/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>			<u>Sampled Date/Time</u>	<u>Received</u>	
BW-110	Water	P1004044-04			30 Mar. 10 9:30	02 Apr. 10 14:59	
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid		4.8	1.0	mg/L	AM21G	4/29/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/29/10	td
N Lactic Acid	J	3.3	25.0	mg/L	AM21G	4/29/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/29/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/29/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
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 Lab Proj #: P1004044  
 Report Date: 05/03/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
SW-102	Water	P1004044-05	30 Mar. 10 10:45	02 Apr. 10 14:59			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
SemiVolatiles							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/30/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

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Lab Proj #: P1004044  
Report Date: 05/03/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
SW-103	Water	P1004044-06	30 Mar. 10 11:40	02 Apr. 10 14:59			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/30/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/30/10	td



Data Qualifiers: J - estimated value, U - Non-detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample-acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
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 Greenville, SC 29615-3535

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 Lab Proj #: P1004044  
 Report Date: 05/03/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
SW-109	Water	P1004044-07	30 Mar. 10 14:50	02 Apr. 10 14:59			
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Butyric Acid		1.5	1.0	mg/L	AM21G	4/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/30/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
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Lab Proj #: P1004044  
Report Date: 05/03/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
BW-109	Water	P1004044-08	30 Mar. 10 14:20	02 Apr. 10 14:59			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
SemiVolatiles							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/30/10	td
N Propionic Acid	J	0.8	1.0	mg/L	AM21G	4/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
 Contact: Steve Webb  
 Address: Patewood Plaza One  
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 Lab Proj #: P1004044  
 Report Date: 05/03/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>			<u>Sampled Date/Time</u>	<u>Received</u>	
SW-104	Water	P1004044-09			30 Mar. 10 16:20	02 Apr. 10 14:59	
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/30/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
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Lab Proj #: P1004044  
Report Date: 05/03/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
BW-202	Water	P1004044-10	31 Mar. 10 9:40	02 Apr. 10 14:59			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/30/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

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Lab Proj #: P1004044  
Report Date: 05/03/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>			<u>Sampled Date/Time</u>	<u>Received</u>	
SW-3	Water	P1004044-11			31 Mar. 10 10:40	02 Apr. 10 14:59	
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid		4.7	1.0	mg/L	AM21G	4/30/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/30/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD. SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis



Client Name: RMT, Inc.  
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 Lab Proj #: P1004044  
 Report Date: 05/03/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>			
MW-3D	Water	P1004044-12	31 Mar. 10 11:30	02 Apr. 10 14:59			
Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/30/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
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Lab Proj #: P1004044  
Report Date: 05/03/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>		<u>Lab Sample #</u>		<u>Sampled Date/Time</u>	<u>Received</u>	
BW-1	Water		P1004044-13		31 Mar. 10 14:30	02 Apr. 10 14:59	
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/30/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

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Page: Page 16 of 18  
Lab Proj #: P1004044  
Report Date: 05/03/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>		<u>Sampled Date/Time</u>		<u>Received</u>	
SW-1	Water	P1004044-14		31 Mar. 10 13:40		02 Apr. 10 14:59	
<u>Analyte(s)</u>	<u>Flag</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Butyric Acid	J	0.8	1.0	mg/L	AM21G	4/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/30/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

Client Name: RMT, Inc.  
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Lab Proj #: P1004044  
Report Date: 05/03/10  
Client Proj Name: Medley Farm  
Client Proj #: 00-71243.61 T1

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>
DU-10103	Water	P1004044-15	31 Mar. 10 0:00	02 Apr. 10 14:59

Analyte(s)	Flag	Result	PQL	Units	Method #	Analysis Date	By
<b>SemiVolatiles</b>							
N Acetic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Butyric Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Lactic Acid	U	< 25.0	25.0	mg/L	AM21G	4/30/10	td
N Propionic Acid	U	< 1.0	1.0	mg/L	AM21G	4/30/10	td
N Pyruvic Acid	U	< 10.0	10.0	mg/L	AM21G	4/30/10	td



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis

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 Contact: Steve Webb  
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Page: Page 18 of 18  
 Lab Proj #: P1004044  
 Report Date: 05/03/10  
 Client Proj Name: Medley Farm  
 Client Proj #: 00-71243.61 T1

**Prep Method:** Analysis of Volatile Fatty Acids in Water  
**Analysis Method:** Analysis of Volatile Fatty Acids in Water

**M100501002-MB**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>RDL</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	< 1.0 mg/L		1.0		- NA
Propionic Acid	< 1.0 mg/L		1.0		- NA
Butyric Acid	< 1.0 mg/L		1.0		- NA
Lactic Acid	< 25.0 mg/L		25.0		- NA
Pyruvic Acid	< 10.0 mg/L		10.0		- NA

**M100501002-LCS**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	96.0 mg/L	100.00	96.00	70 - 130
Propionic Acid	95.0 mg/L	100.00	95.00	70 - 130
Butyric Acid	100.0 mg/L	100.00	100.00	70 - 130
Lactic Acid	110.0 mg/L	100.00	110.00	70 - 130
Pyruvic Acid	90.0 mg/L	100.00	90.00	70 - 130

**P1004044-15A-MS**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>
Acetic Acid	99.0 mg/L	100.00	99.00	70 - 130
Propionic Acid	91.0 mg/L	100.00	91.00	70 - 130
Butyric Acid	90.0 mg/L	100.00	90.00	70 - 130
Lactic Acid	110.0 mg/L	100.00	110.00	70 - 130
Pyruvic Acid	99.0 mg/L	100.00	99.00	70 - 130

**P1004044-15A-MSD**

	<u>Result</u>	<u>TrueSpikeConc.</u>	<u>%Recovery</u>	<u>Ctl Limits</u>	<u>RPD</u>	<u>RPD Ctl Limits</u>
Acetic Acid	110.0 mg/L	100.00	110.00	70 - 130	10.53	0 - 20
Propionic Acid	110.0 mg/L	100.00	110.00	70 - 130	18.91	0 - 20
Butyric Acid	110.0 mg/L	100.00	110.00	70 - 130	20.00	0 - 20
Lactic Acid	120.0 mg/L	100.00	120.00	70 - 130	8.70	0 - 20
Pyruvic Acid	110.0 mg/L	100.00	110.00	70 - 130	10.53	0 - 20

  Outlined Results indicate results outside of Control limits



Data Qualifiers: J - estimated value, U - Non detect, R - Poor surrogate recovery, M - Recovery/RPD poor for MS/MSD, SAMP/DUP, B - detected in blank, S - field sample as received did not meet NELAC sample acceptance criteria, L - Subcontracted Lab used, N - NELAC certified analysis



P1004044

## CHAIN OF CUS. / RECORD

77087

30 Patewood Drive, Suite 100, Patewood Plaza One, Greenville, SC 29615-3535  
Phone 864/281-0030 • Fax 864/281-0288

Project No. 71243.61		Project/Client: Mallen		Total Number of Containers	MATRIX	Analyses Requested FAT 10 ACID 5										Comments:
Project Manager/Contact Person: S. WIEB / L. CLARK		PRESERVED CODES A — NONE B — HNO <sub>3</sub> C — H <sub>2</sub> SO <sub>4</sub> D — NaOH E — HCl F — METHANOL G —														
Lab No.	Yr./Date	Time	Sample Station ID													
1	3/26	1210	A-7	2	GW	2										
2	3/26	1430	BLW-108													
3	3/26	1140	SW-108													
4	3/30	0930	BLW-110													
5		1045	SW-102													
6		1140	SW-103													
7		1450	SW-109													
8		1420	BLW-109													
9	3/30	1620	SW-104	2	GW	2										
10	3/31	0940	BLW-202	2	GW	2										

## SPECIAL INSTRUCTIONS

8585 9686 7981			
SAMPLER Relinquished by (Signature) <i>[Signature]</i>	Date/Time 4-1-10 1600	Received by (Signature) FED EX	Date/Time 4-1-10 1600
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature) <i>[Signature]</i>	Date/Time 4/2/10
Custody Seal: Present/Absent Intact/Not Intact Seal #s			

HAZARDS ASSOCIATED WITH SAMPLES	Turn Around (circle one)	Normal	Rush
<input type="checkbox"/> Flammable <input type="checkbox"/> Corrosive <input type="checkbox"/> Highly Toxic <input type="checkbox"/> Other (list)	Report Due		
(For Lab Use Only)			
Receipt Temp: Temp Blank Y N		Receipt pH (Wet/Metals)	



# Cooler Receipt Form

Client: RMT, Inc.

Client Code: RMTSC

LabProject #: P1004044

Project: Medley Farm

Cooler ID: 1

**A. Preliminary Examination Phase:**

Date cooler opened: 4/2/2010

Cooler opened by: dp

1. Was airbill Attached? N/A

Airbill #:

Carrier Name: FedEx

2. Custody Seals? N/A

How many? 0

Location:

Seal Name:

3. Seals intact? Yes

4. Screened for radiation? N/A

5. COC Attached? Yes

Properly Completed? Yes

Signed by employee? Yes

6. Project Identification from custody paper: Medley Farm

7. Preservative: Yes

Temperature: 4

Comments:

**B. Log-In Phase: Samples Log-in Date:**

4/2/2010

Log-in By:

dp

1. Packing Type: Other

Were samples in separate bags? N/A

3. Were containers intact? Yes

Labels agree with COC? Yes

4. Number of bottles received: 28

Number of samples received: 14

5. Correct containers used? Yes

Correct preservatives added? N/A

6. Sufficient sample volume? Yes

7. Bubbles in VOA samples? N/A

8. Was Project manager called and status discussed? N/A

Comments:

Have designate person initial here to acknowledge receipt of cooler:

 Date: 4/2/10

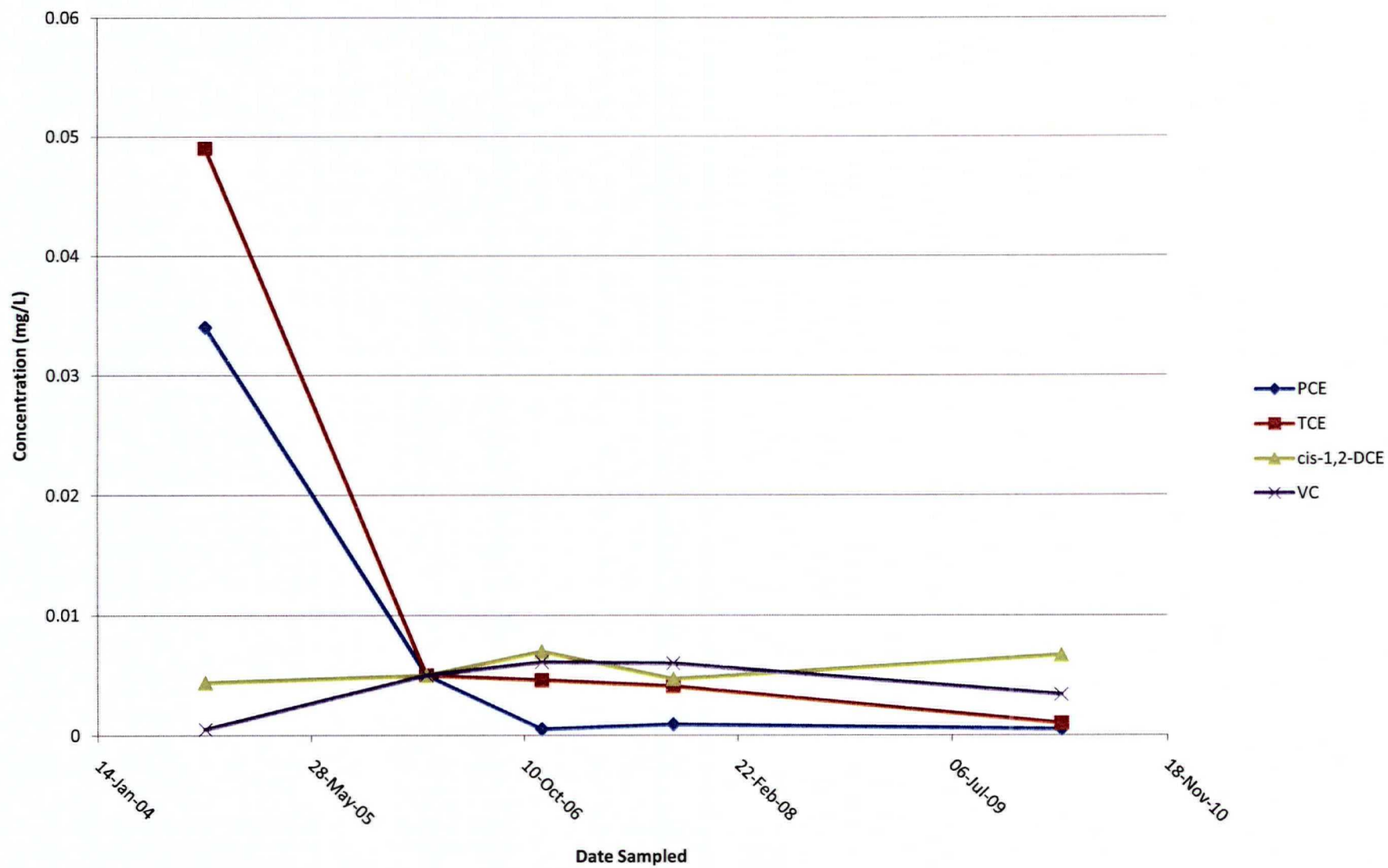


## Appendix B

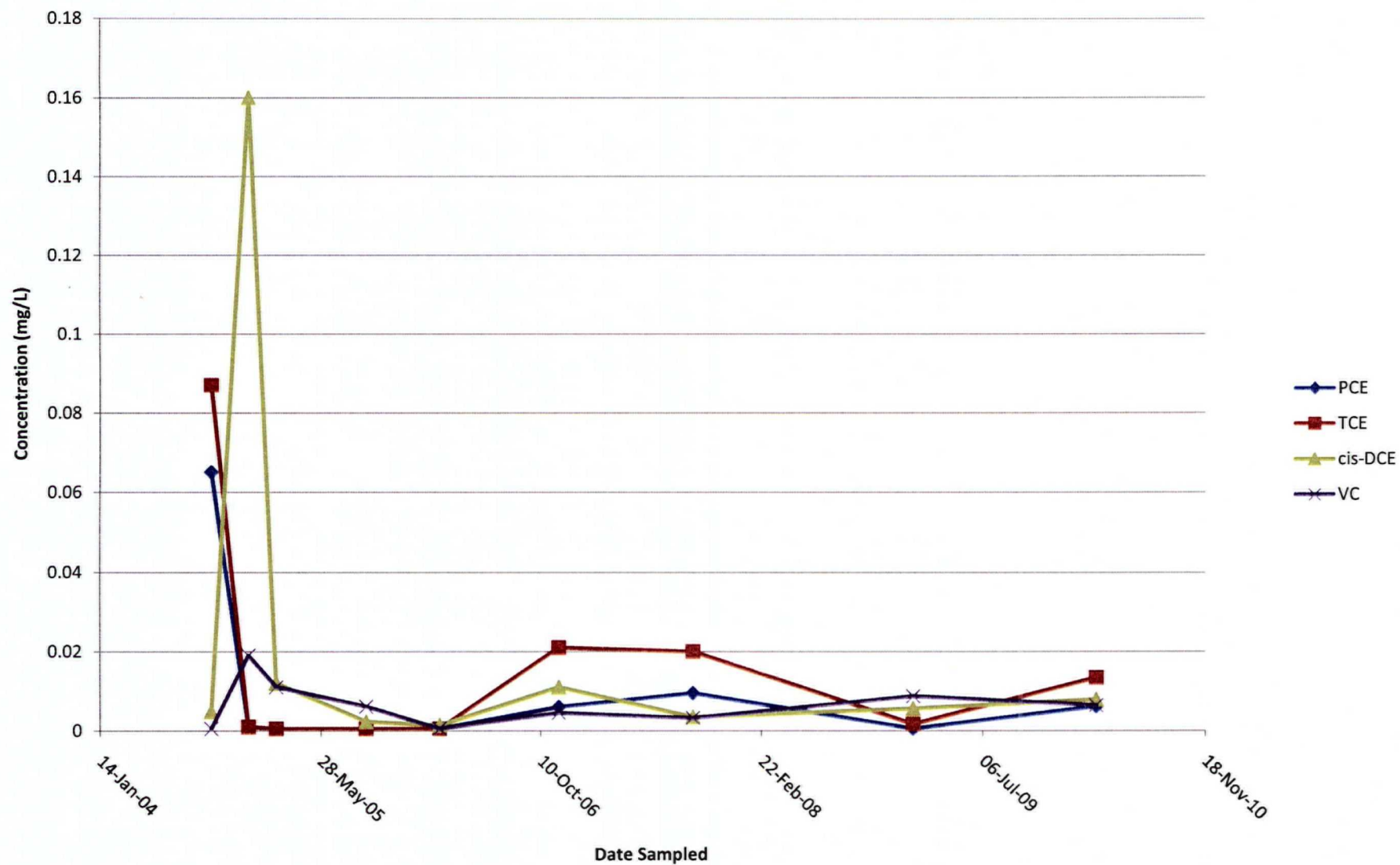
# Time Versus Concentration Graphs

---

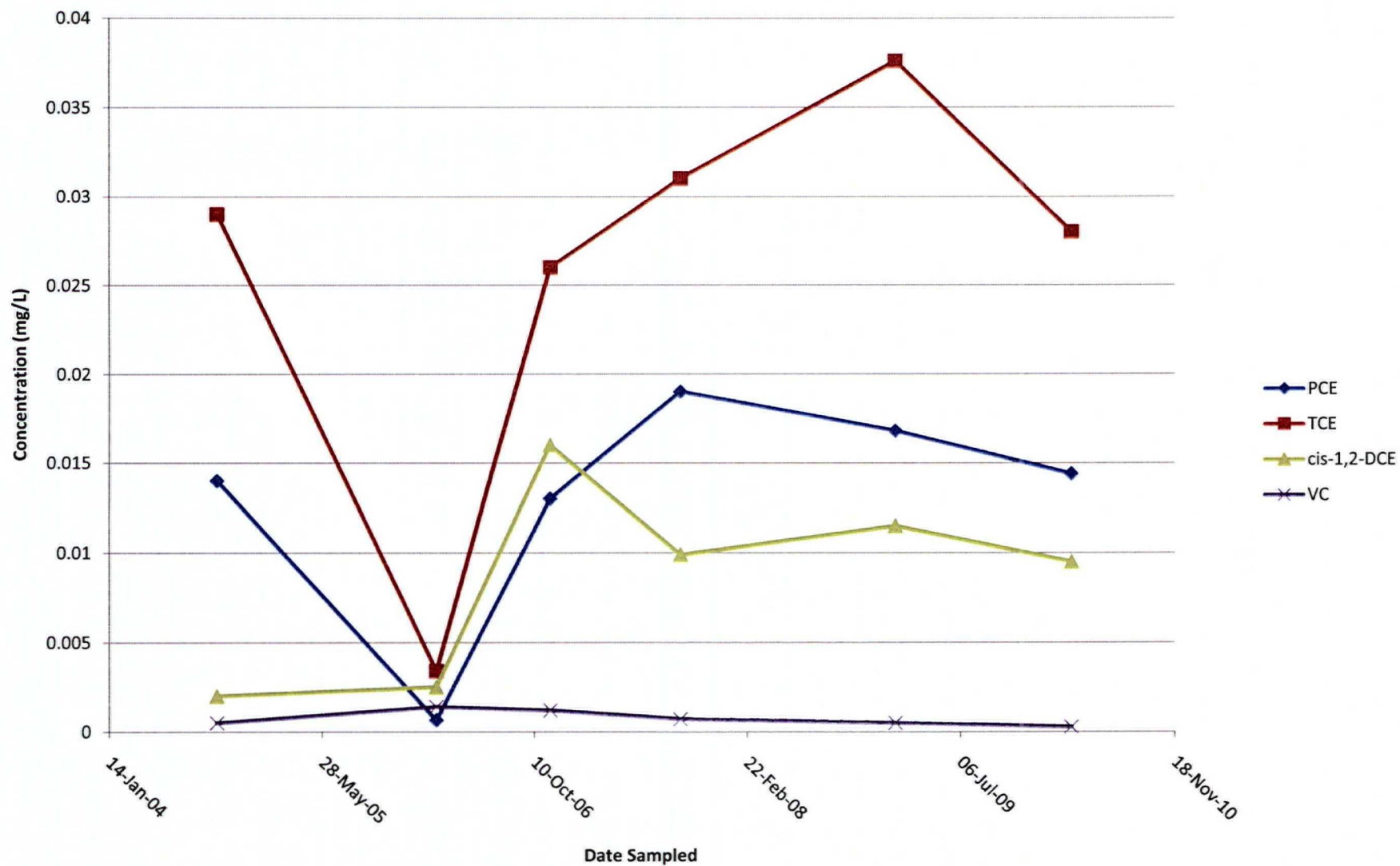
## Time vs. Concentration in A-1



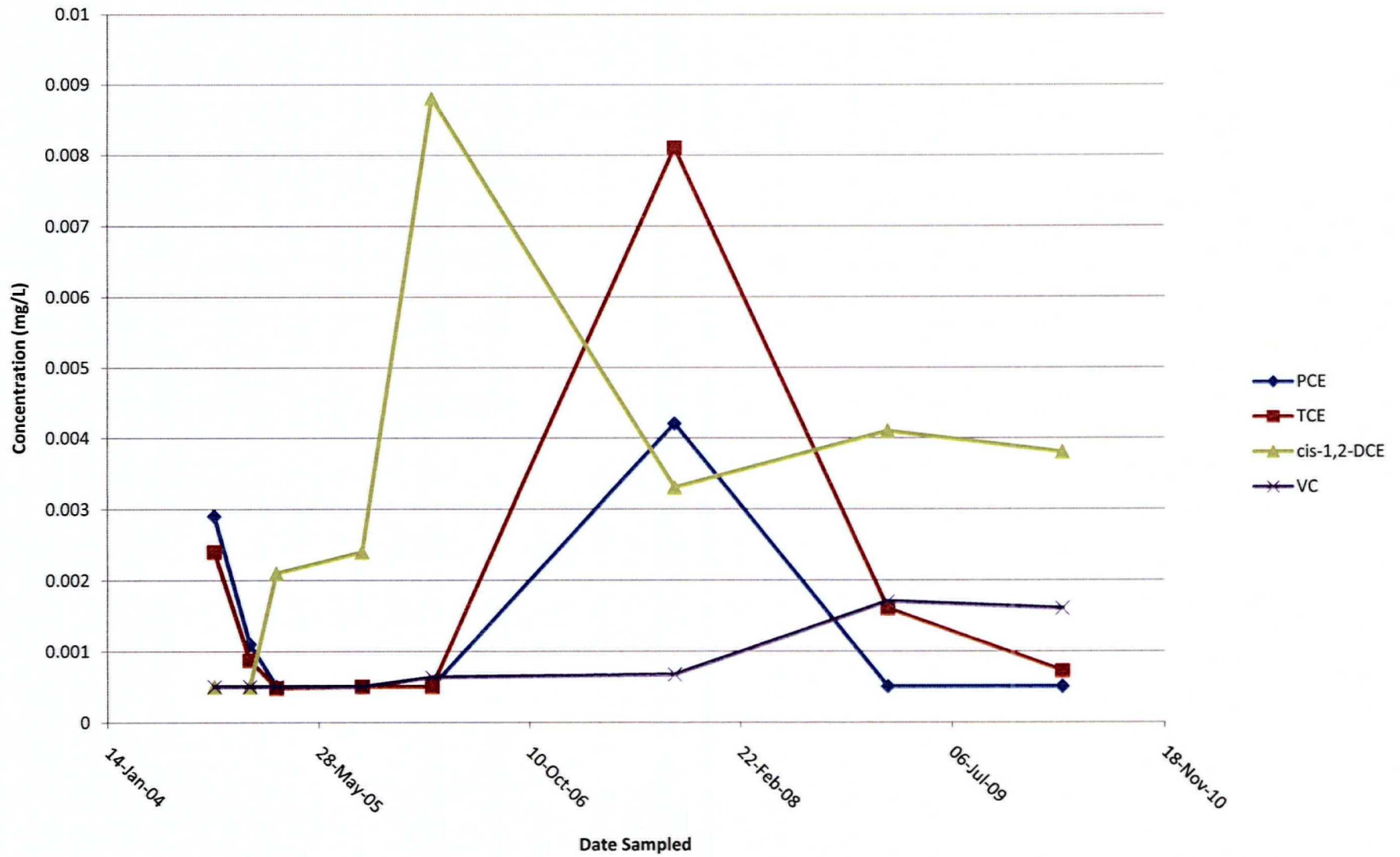
## Time vs. Concentration in A-2



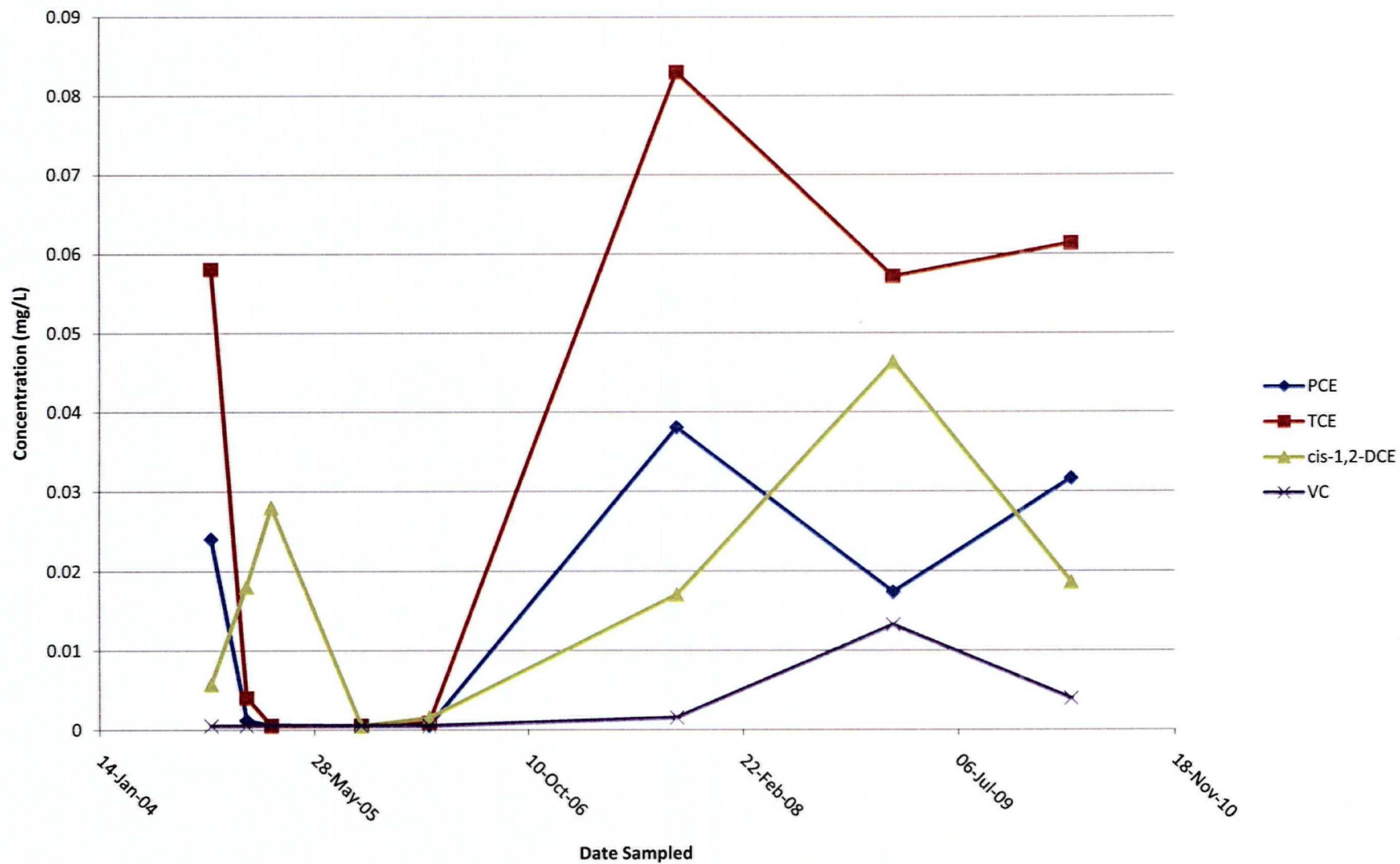
### Time vs. Concentration in A-3



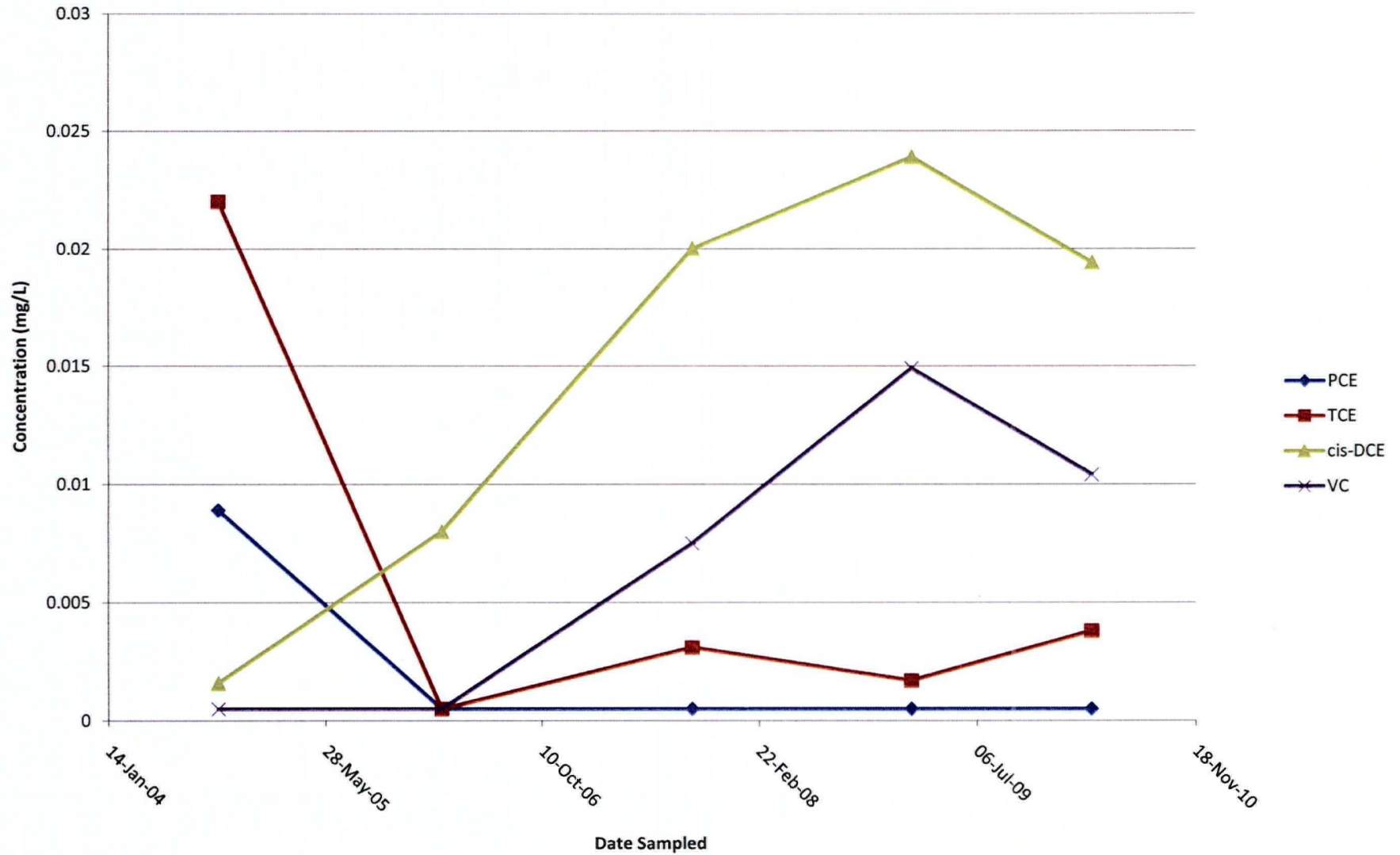
## Time vs. Concentration in A-4



## Time vs. Concentration in A-5

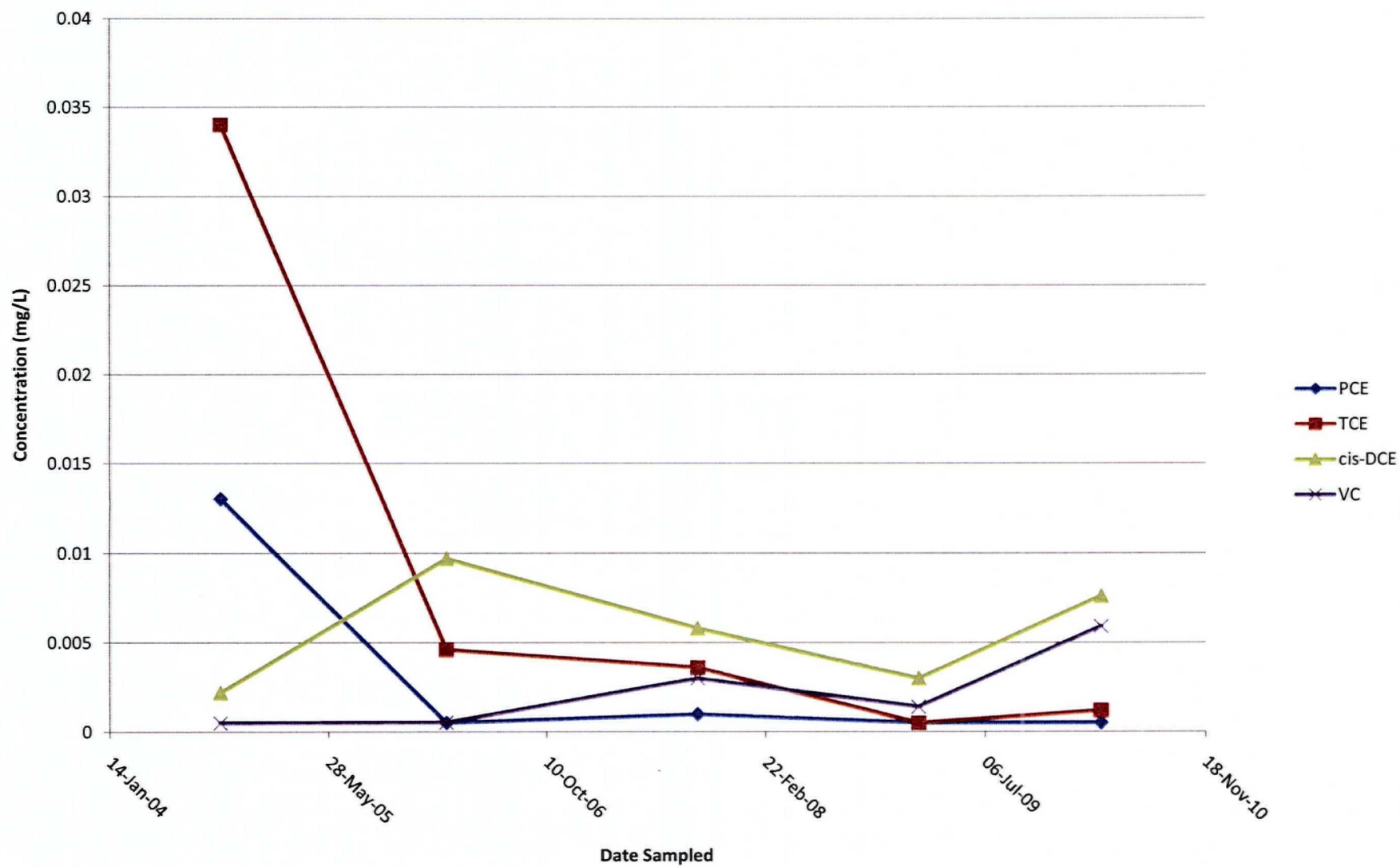


Time vs. Concentration in A-6



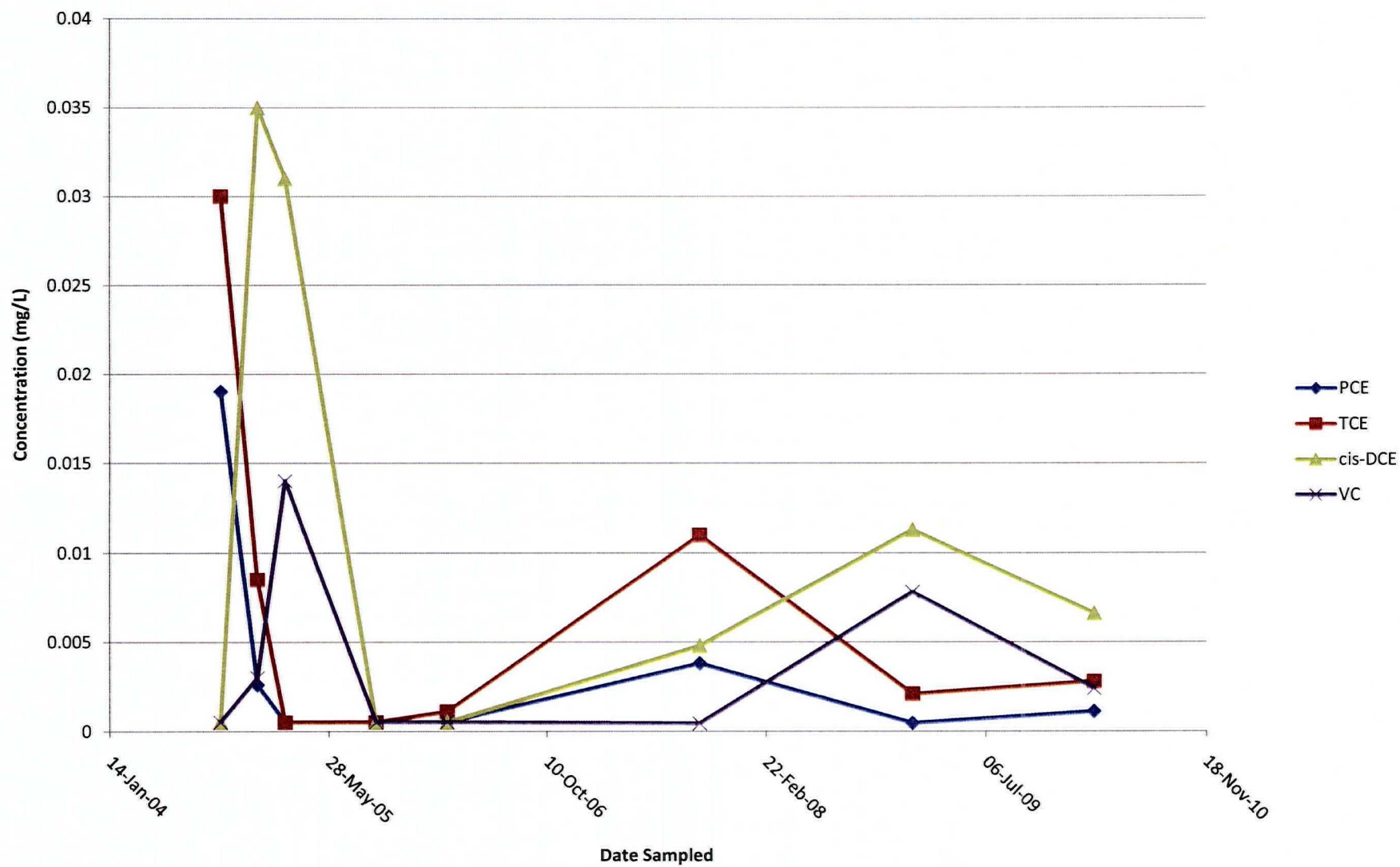


## Time vs. Concentration in A-7

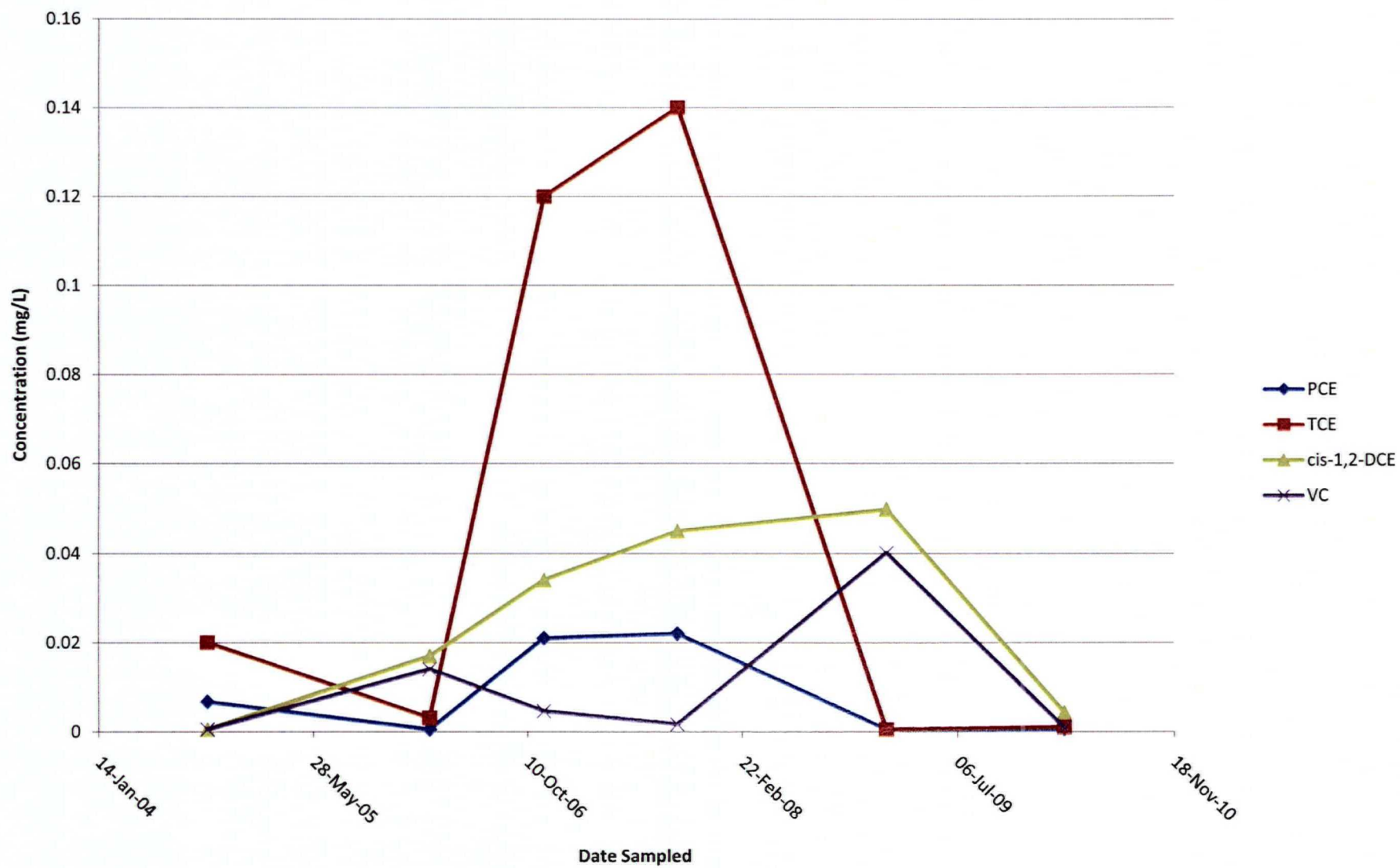




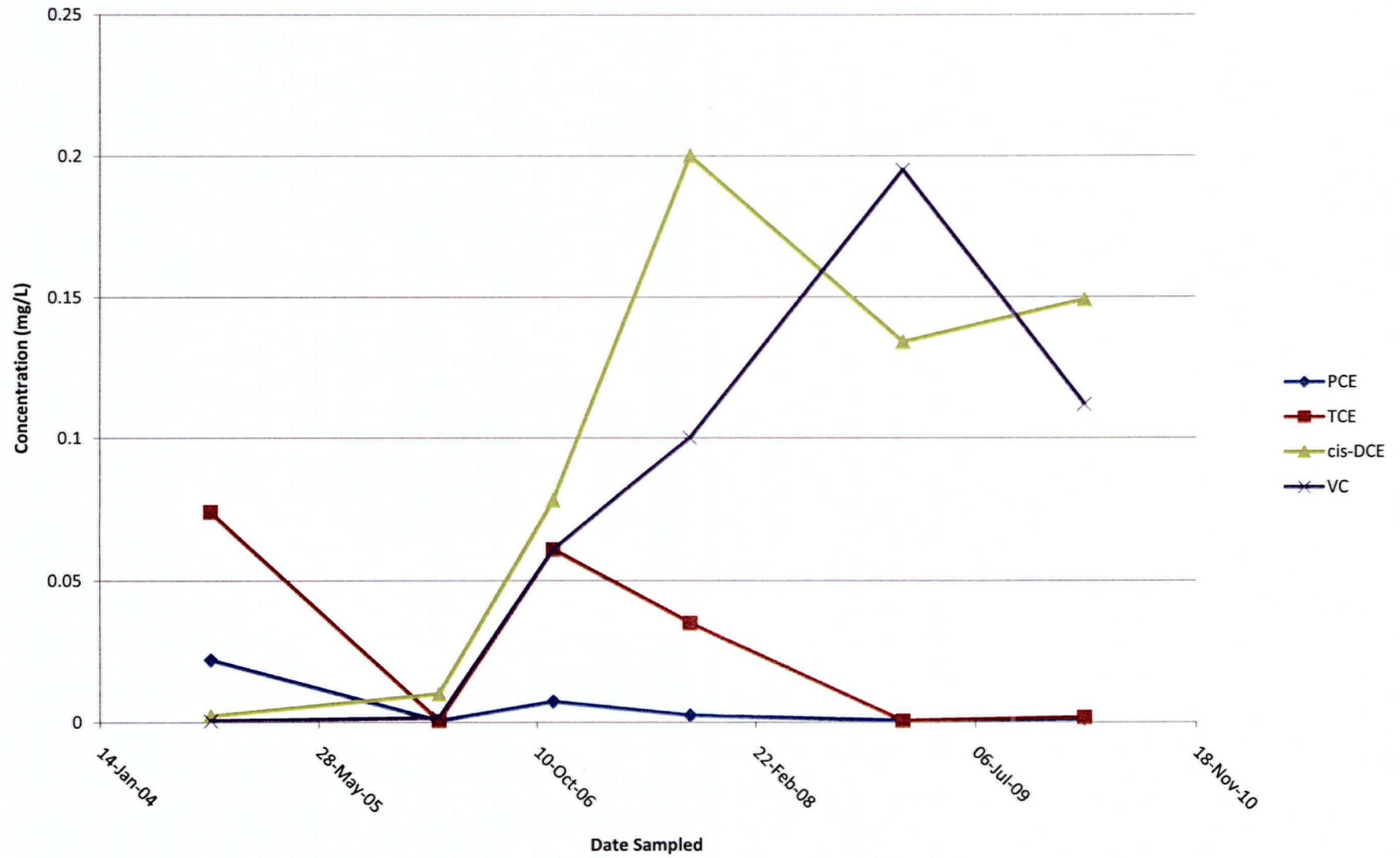
## Time vs. Concentration in B-1



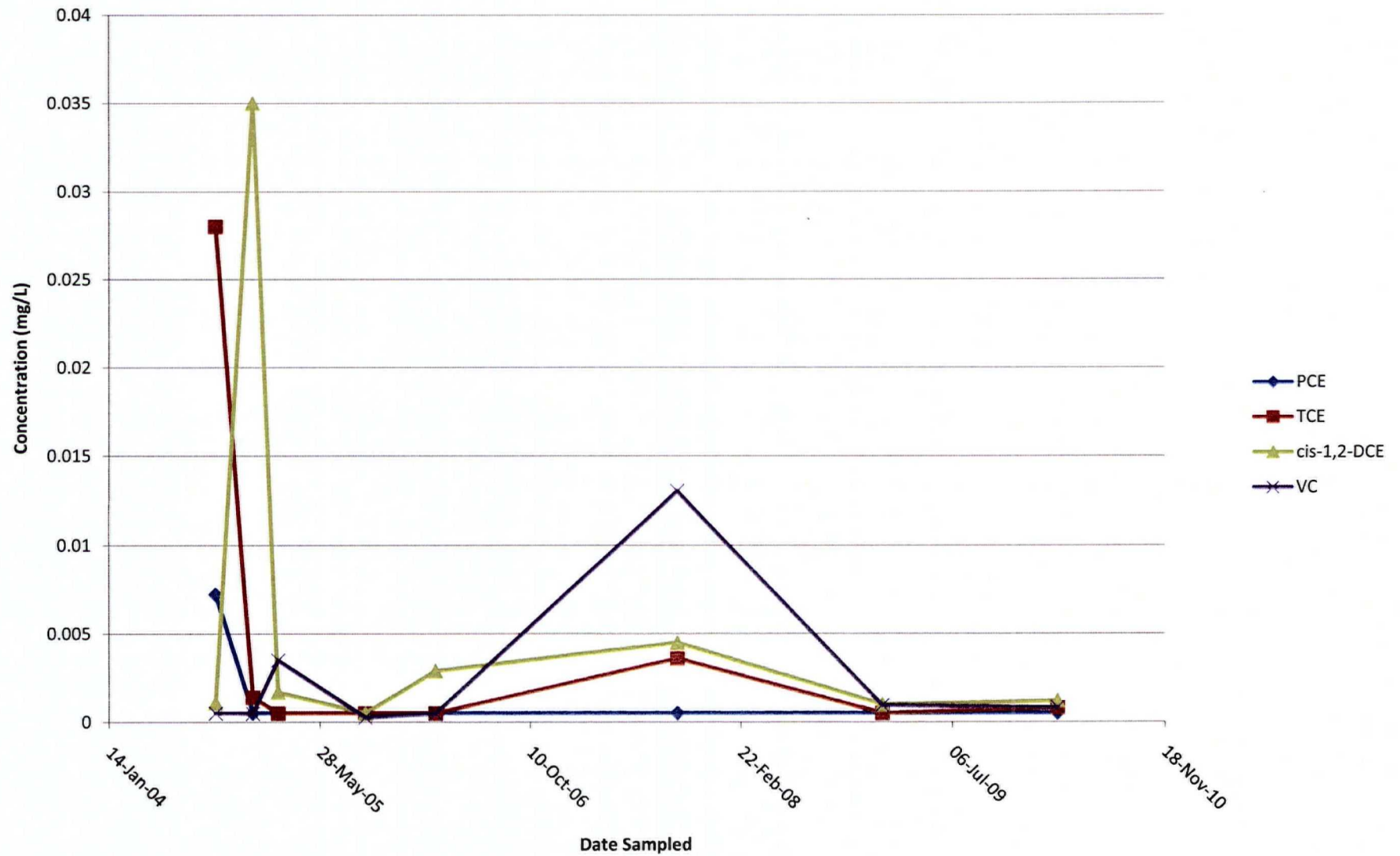
Time vs. Concentration in B-2



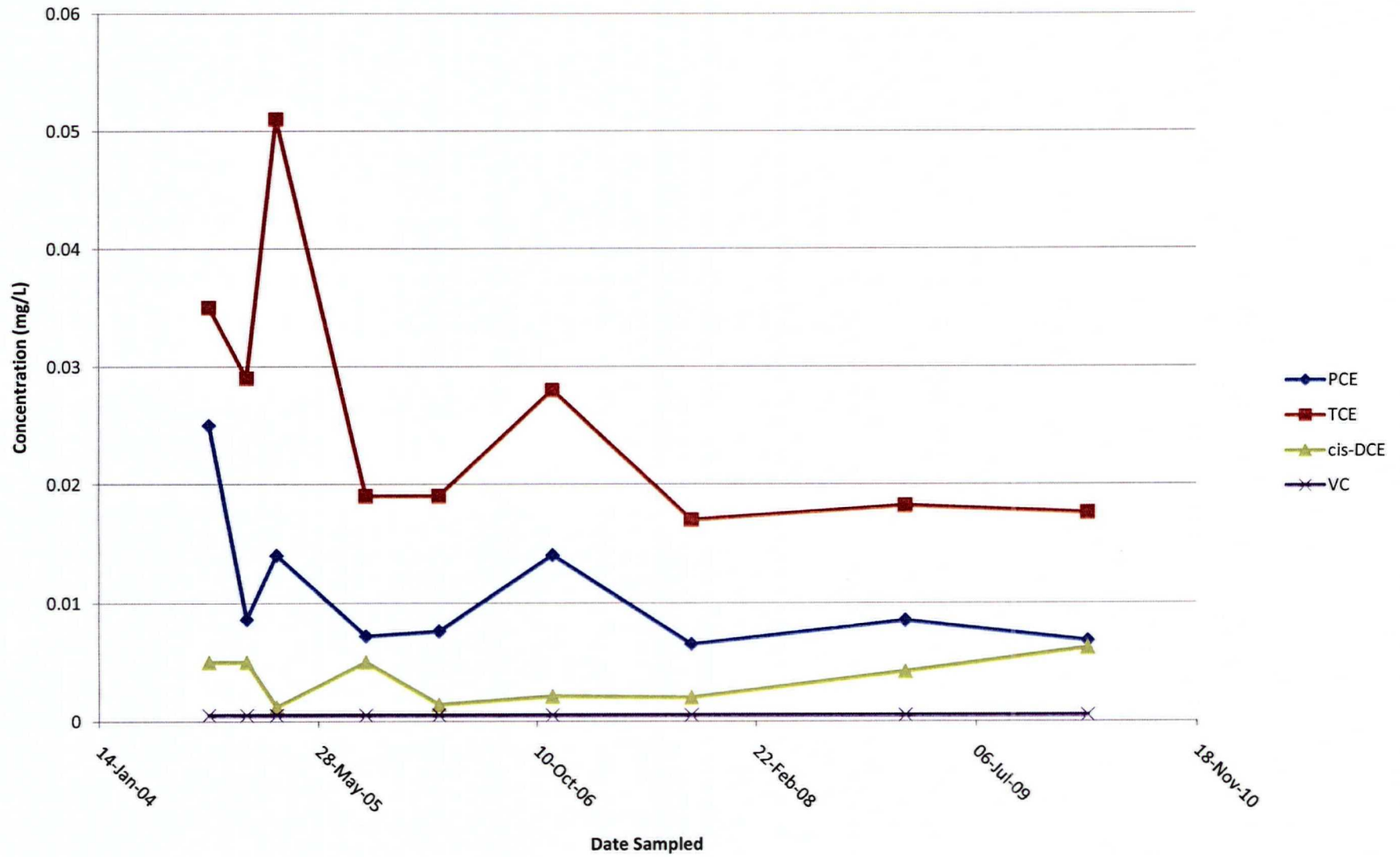
### Time vs. Concentration in B-3



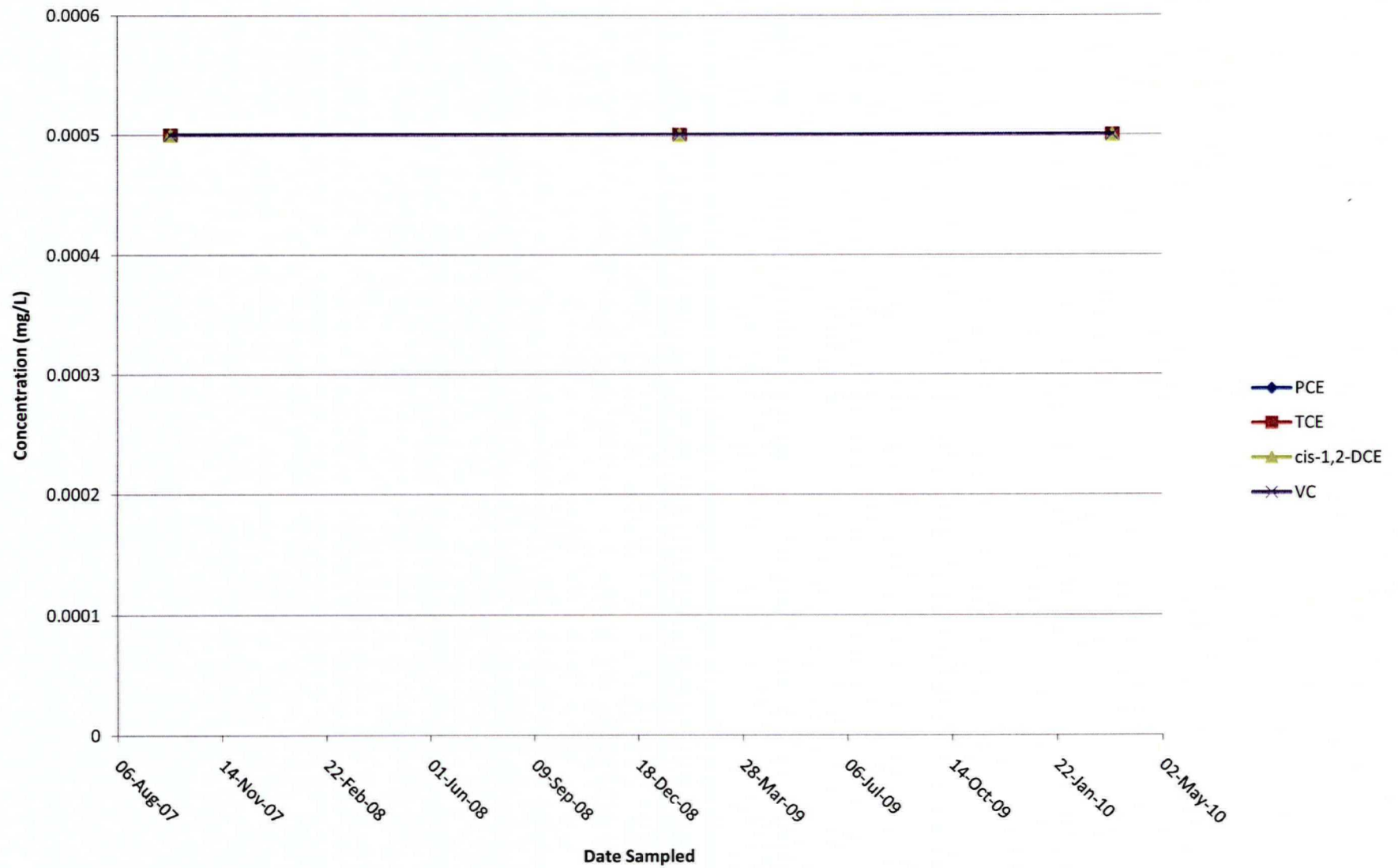
## Time vs. Concentration in B-4



## Time vs. Concentration in BW-2

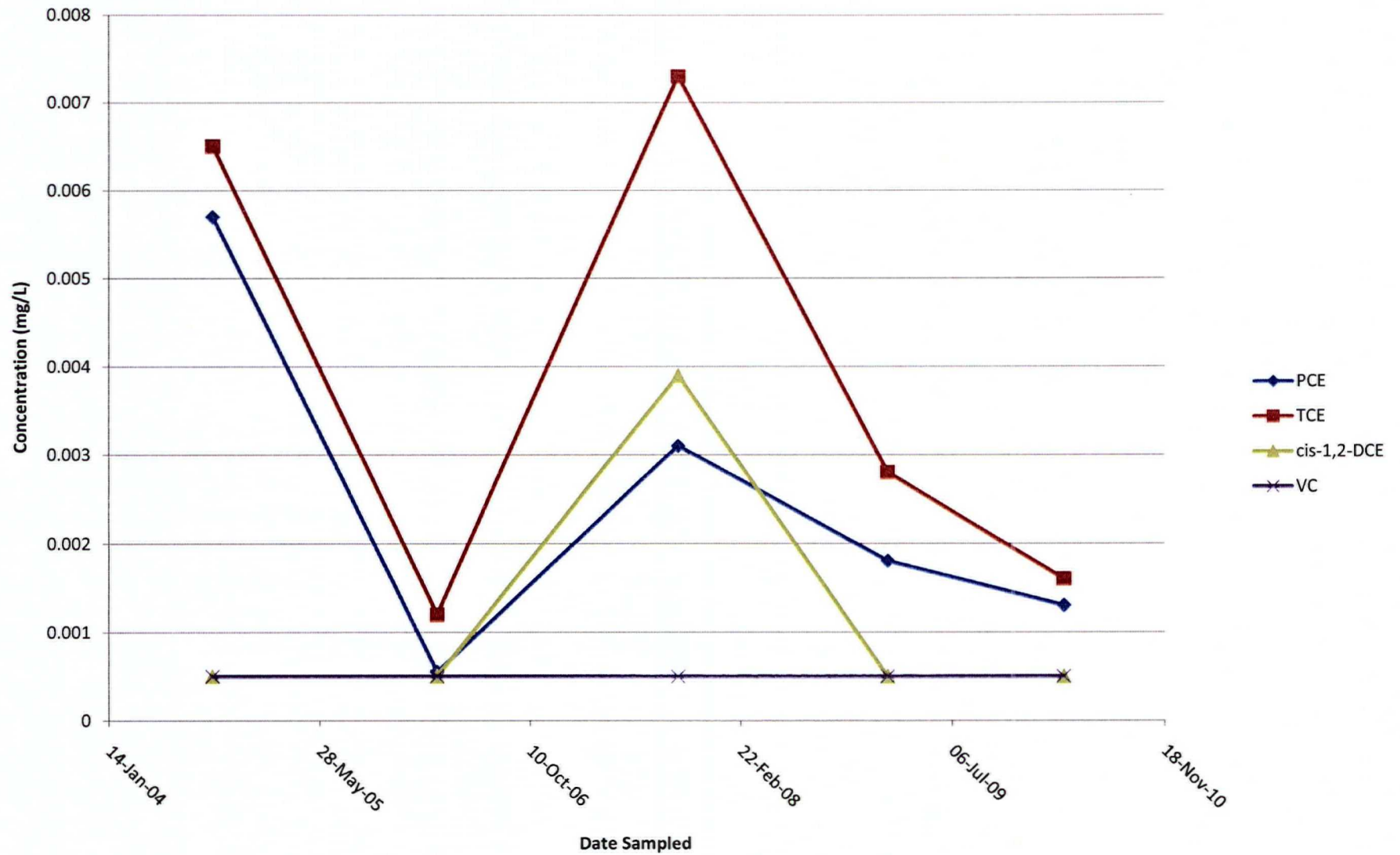


## Time vs. Concentration in BW-105

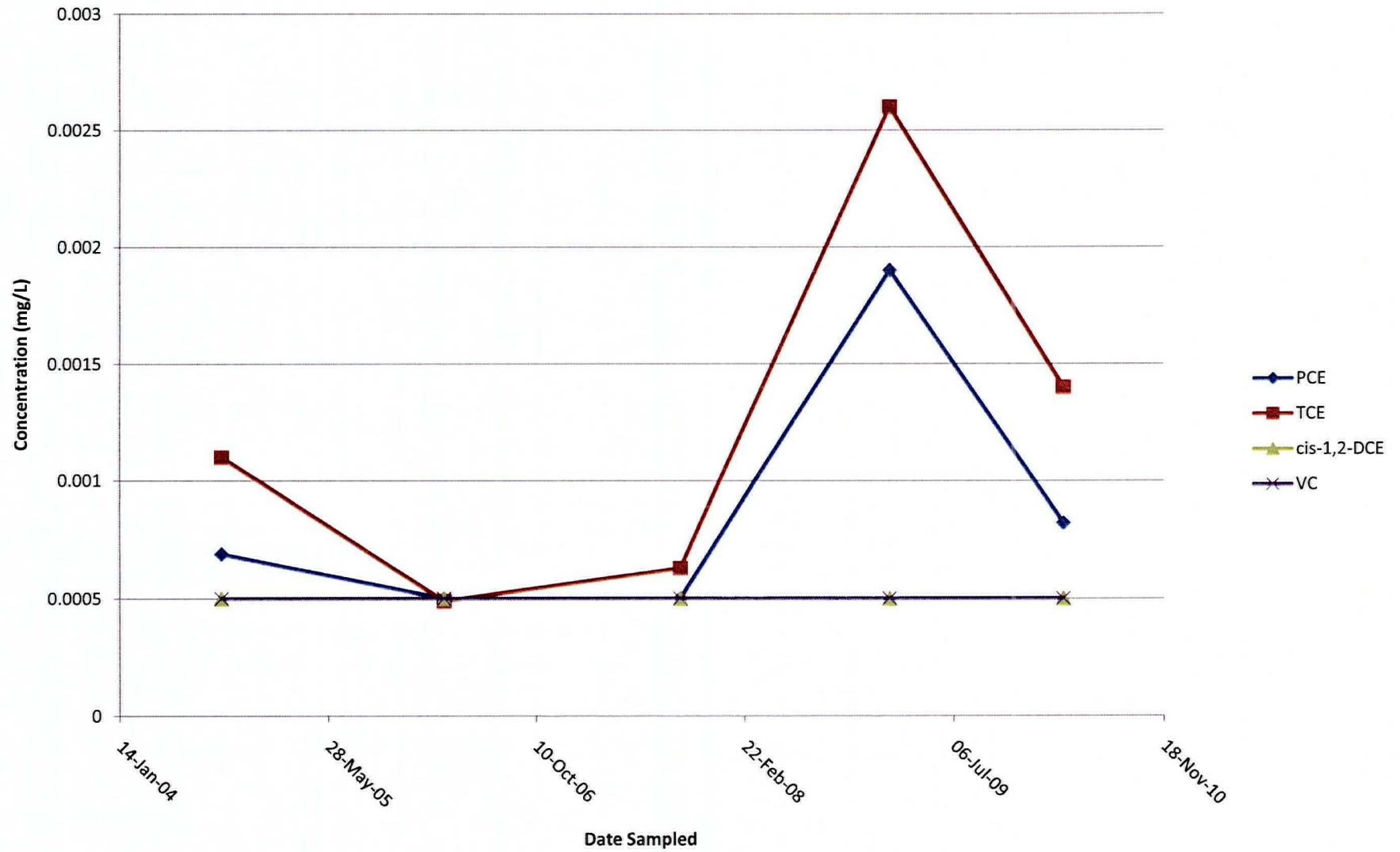




Time vs. Concentration in BW-108

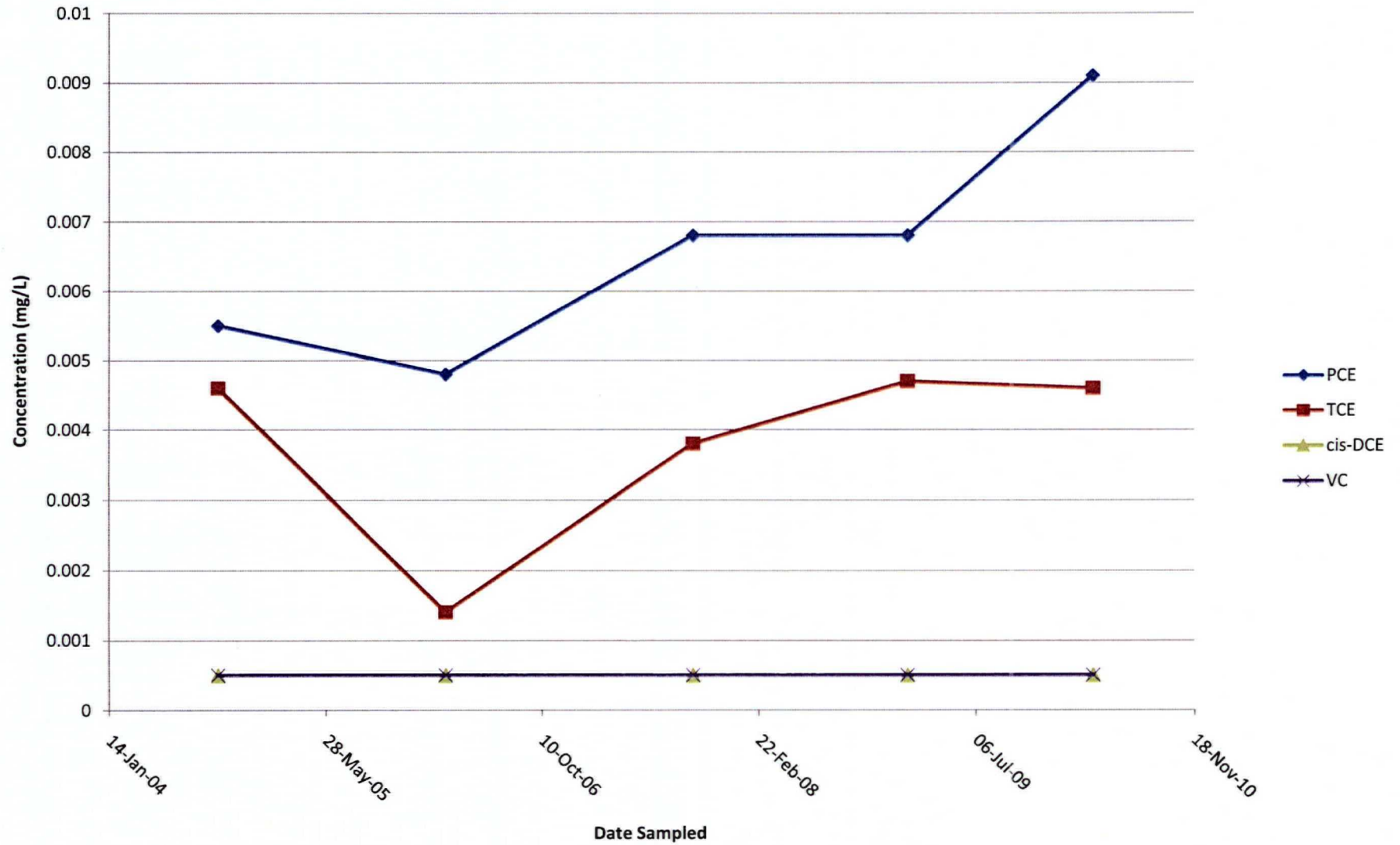


## Time vs. Concentration in BW-201

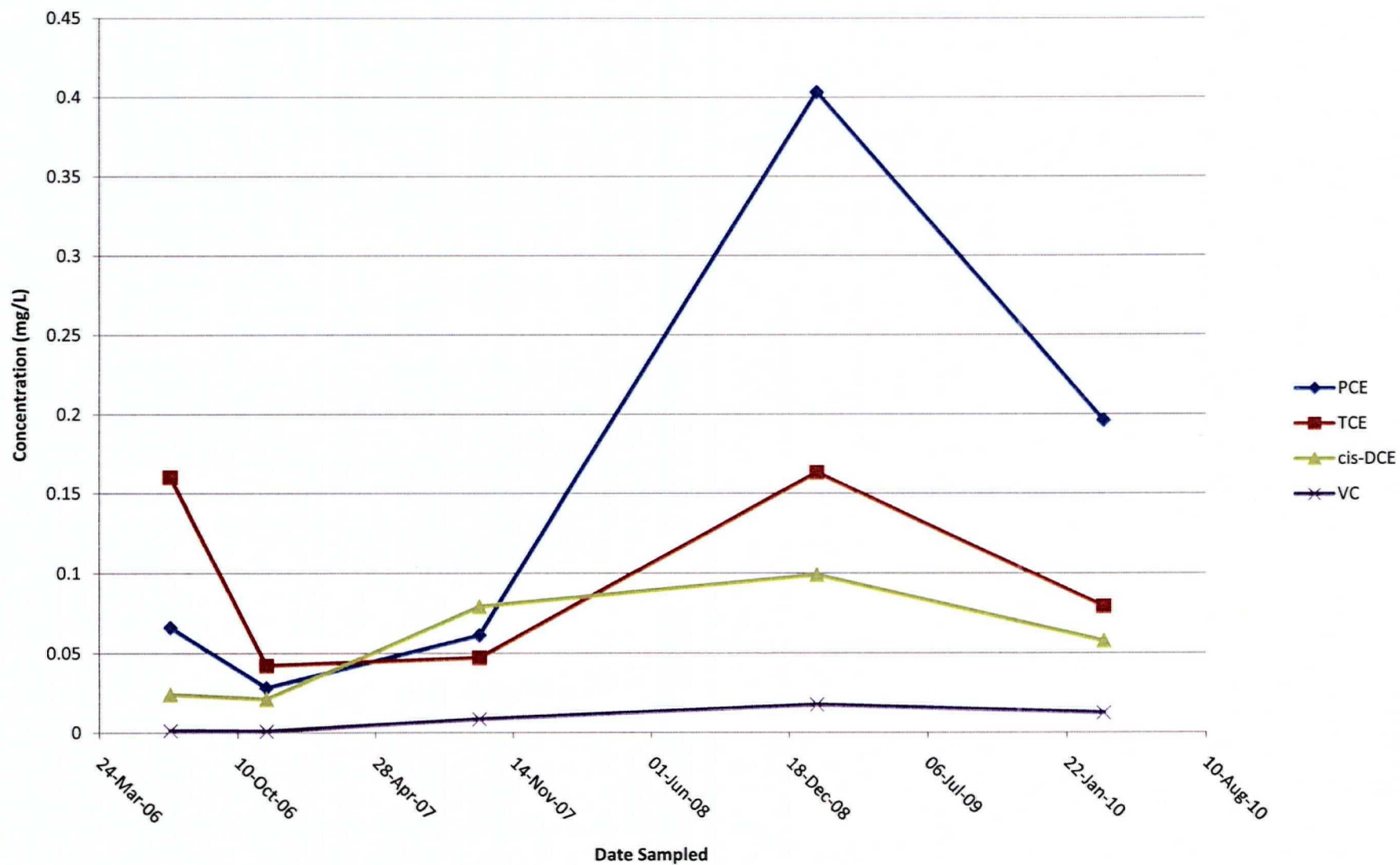




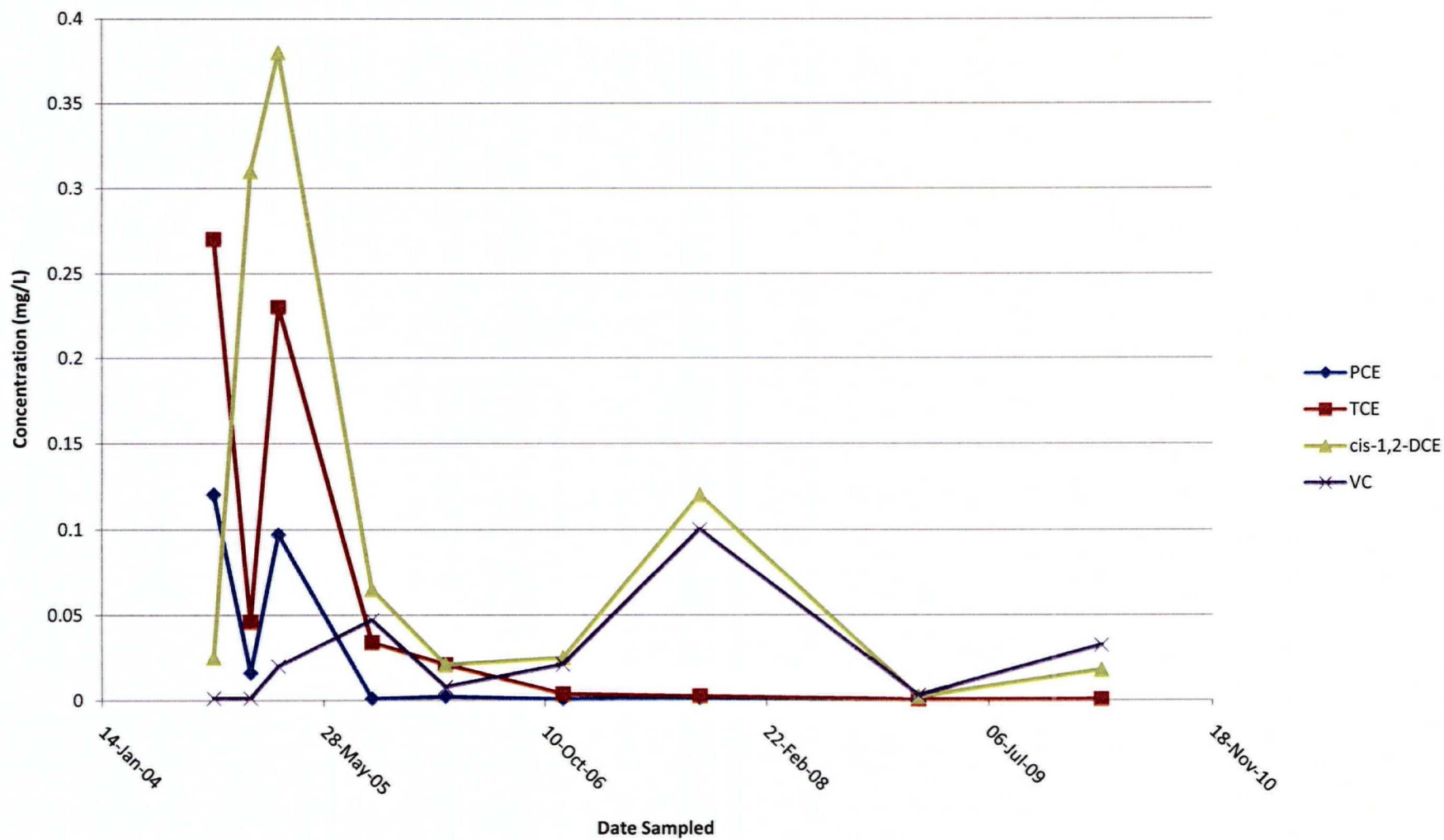
## Time vs. Concentration in BW-202



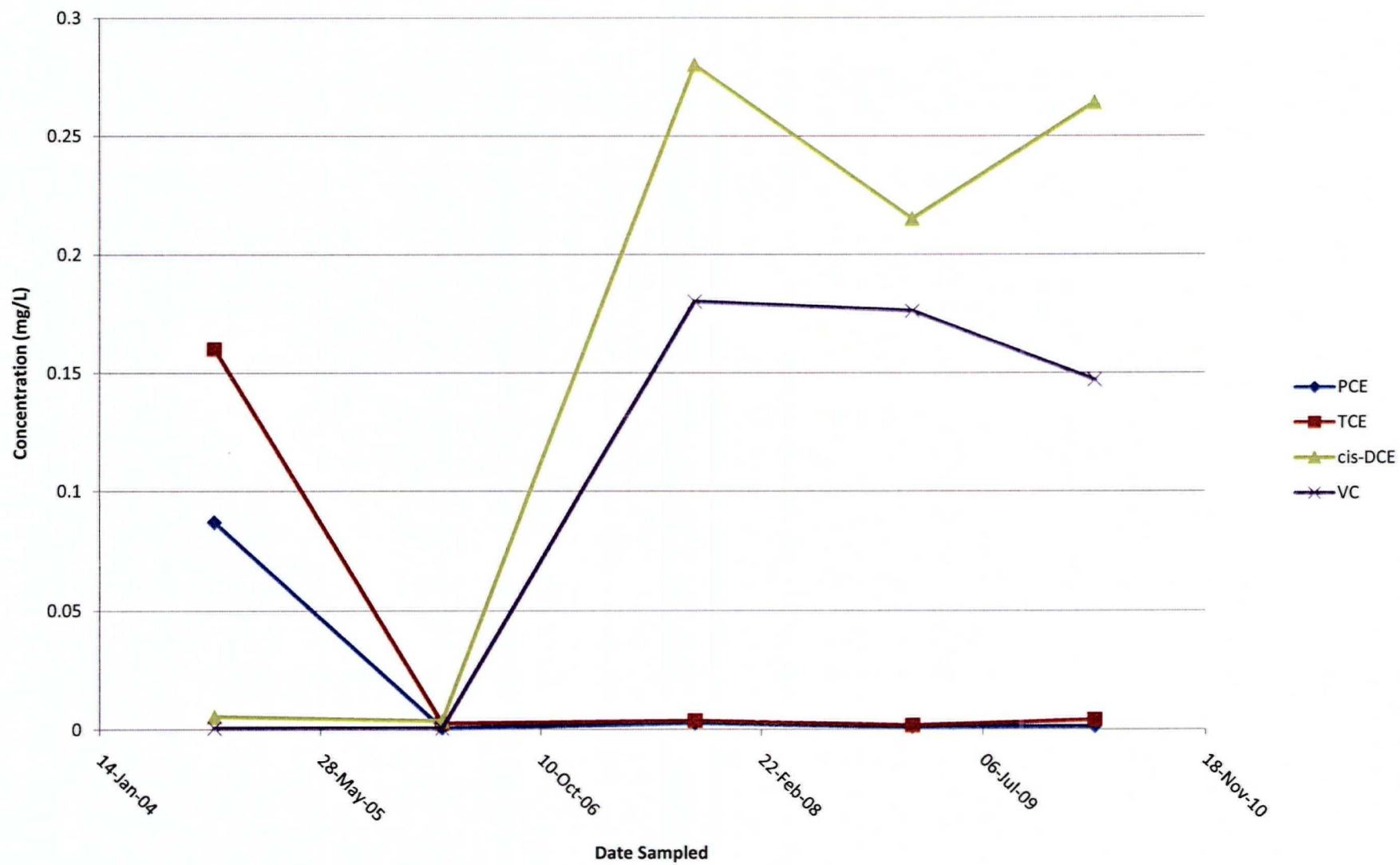
## Time vs. Concentration in DP-2-1



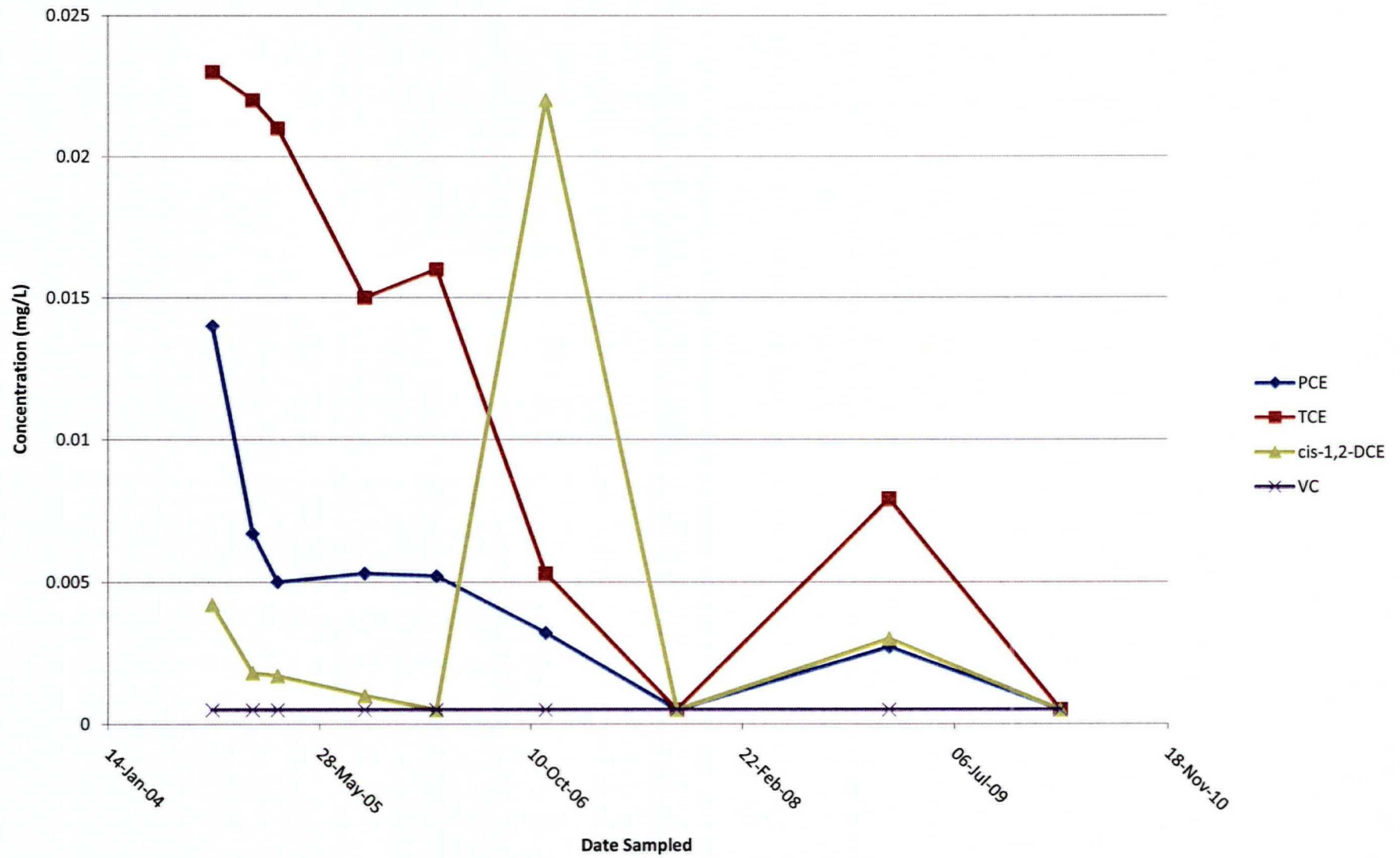
## Time vs. Concentration in DP-3-1



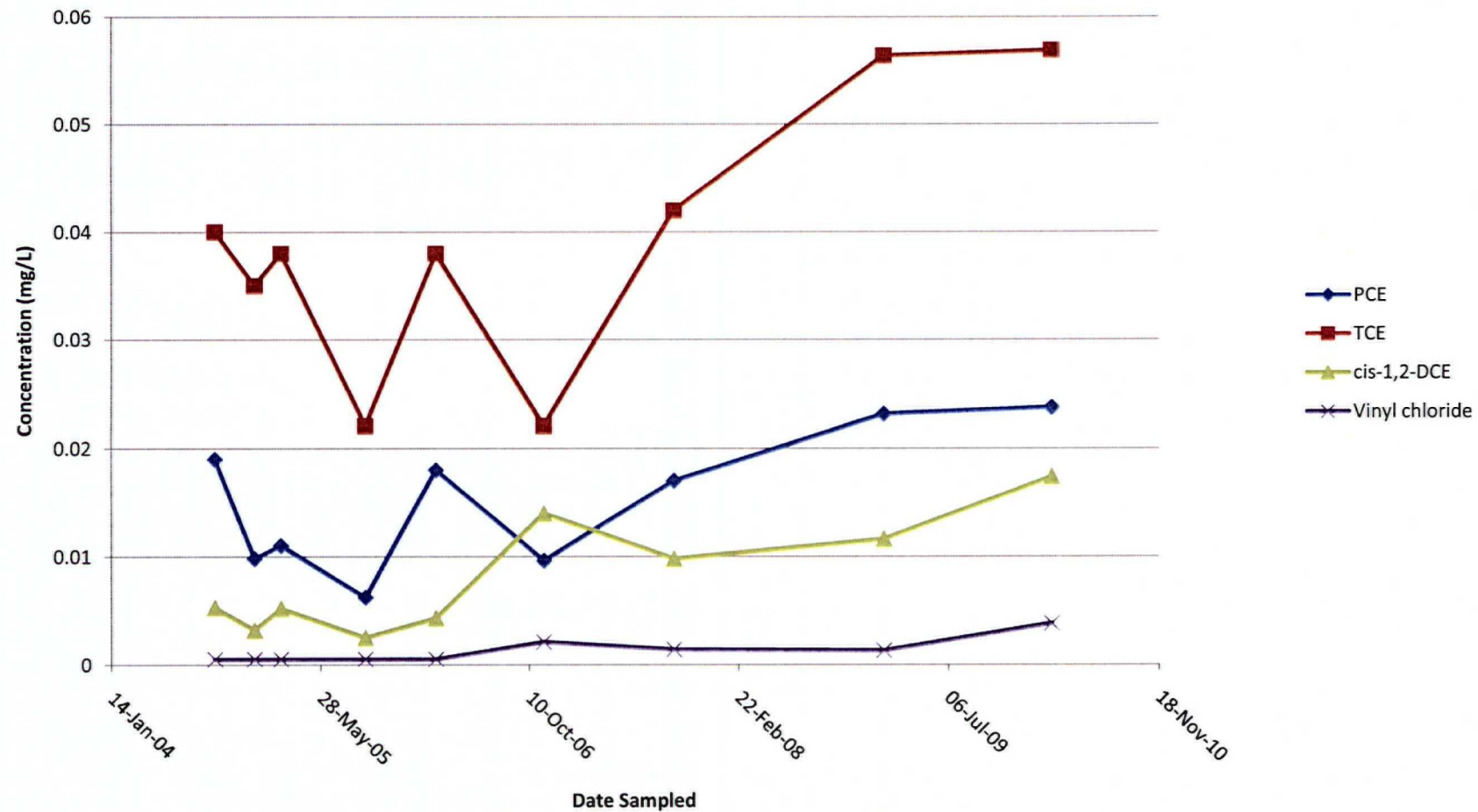
### Time vs. Concentration in DP-3-2



Time vs. Concentration in MW-2-1

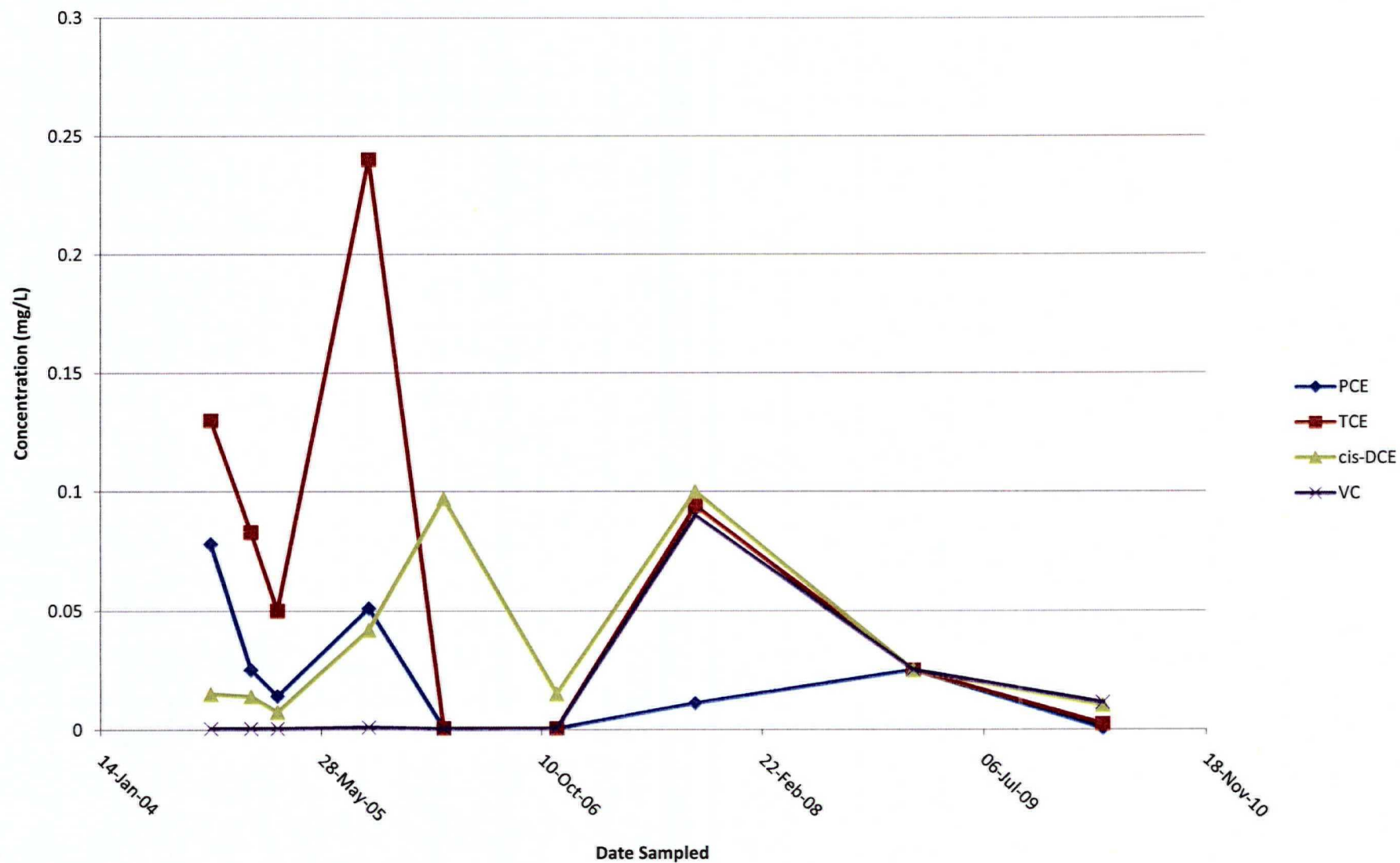


## Time vs. Concentration in MW-2-2



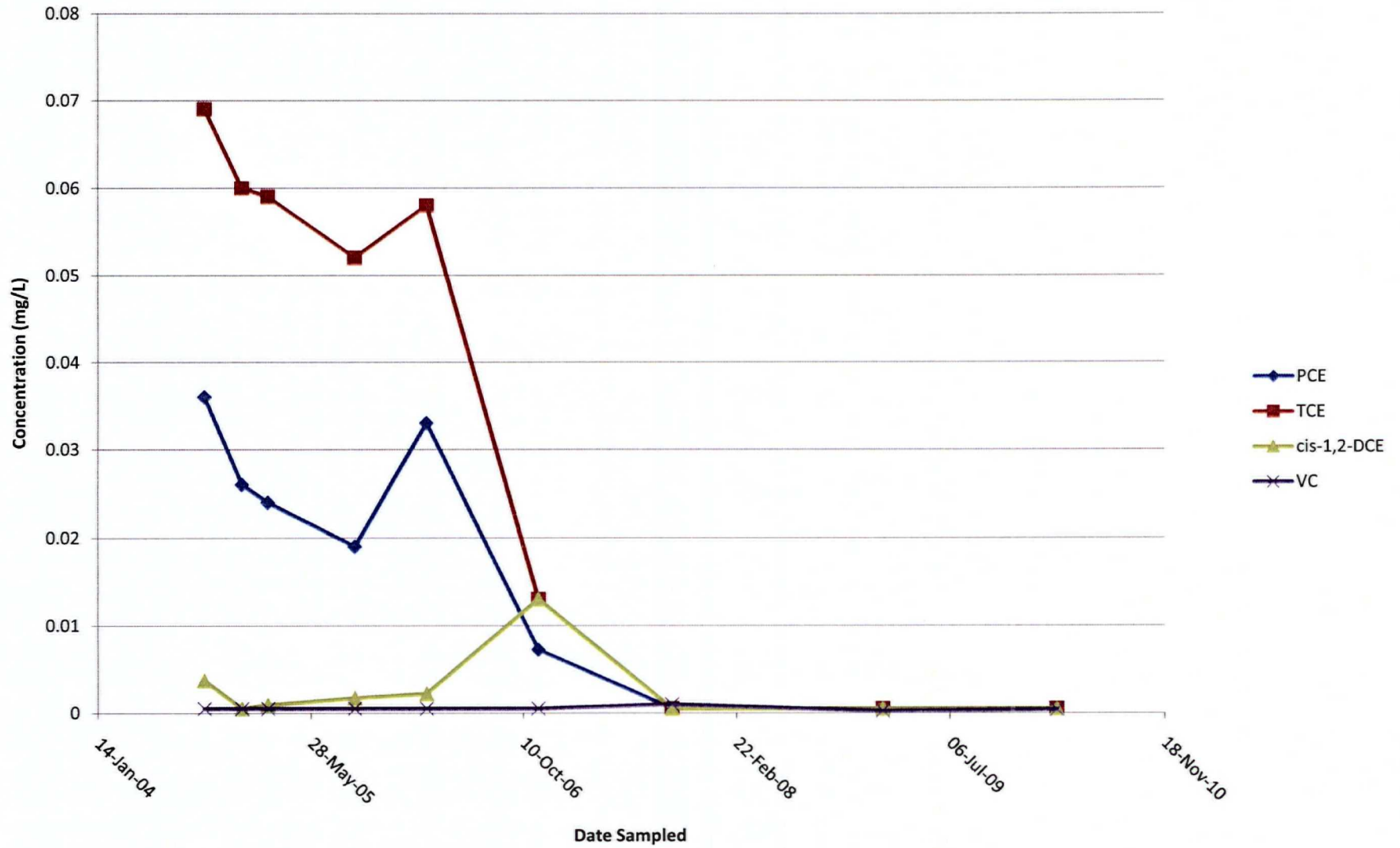


Time vs. Concentration in MW-3D



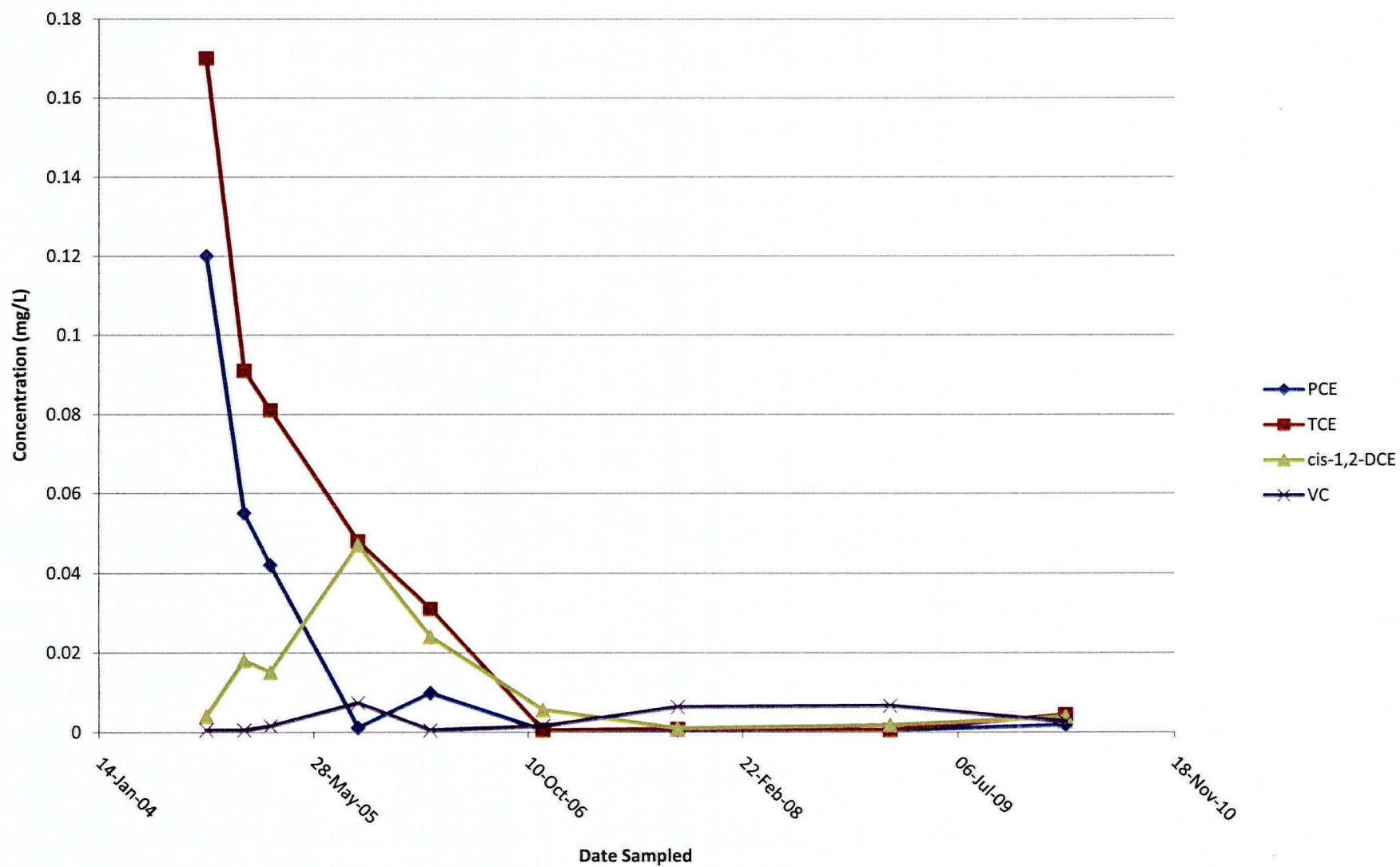
Note: non-detections were given a value of one half of the detection limit.

## Time vs. Concentration in MW-4-1

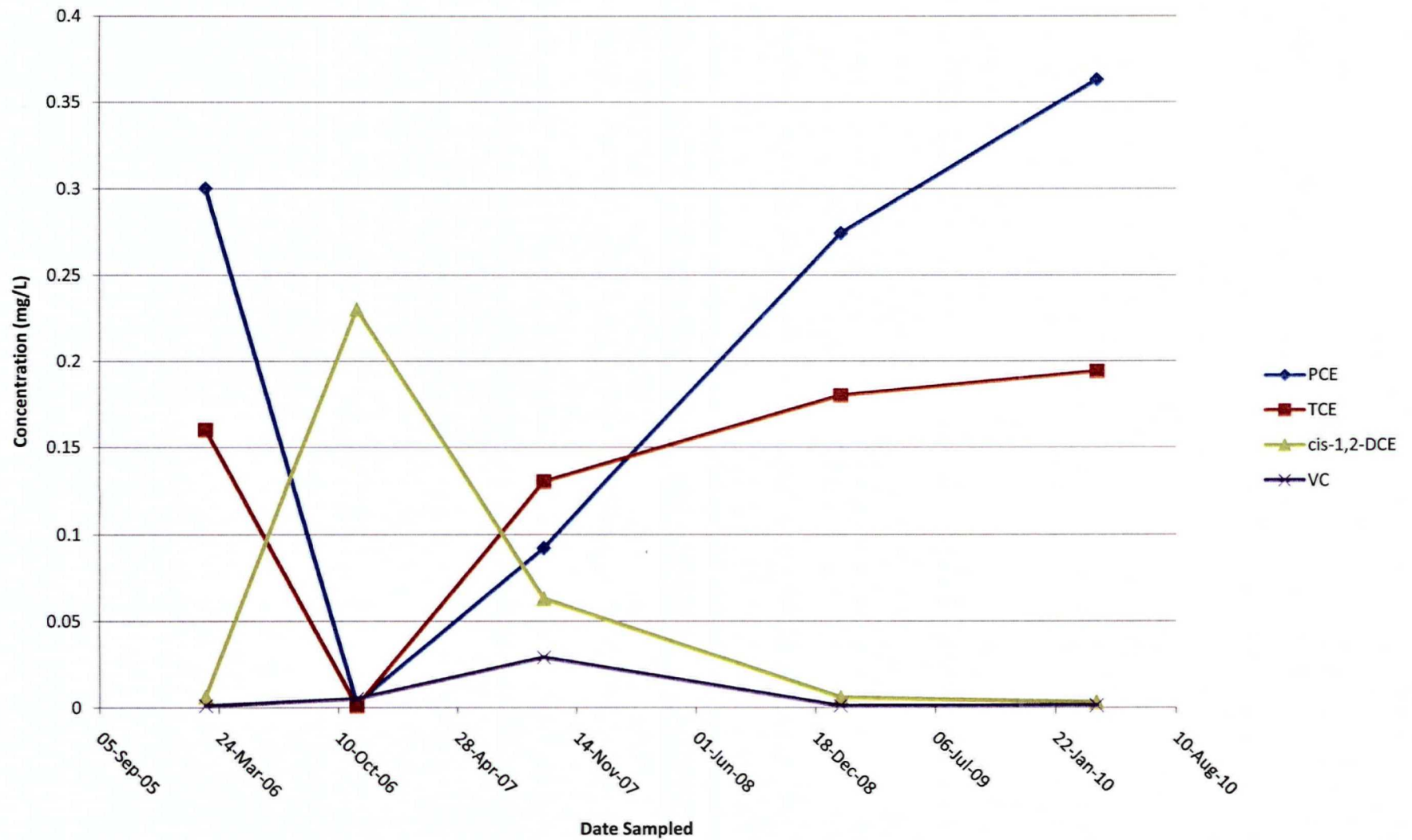




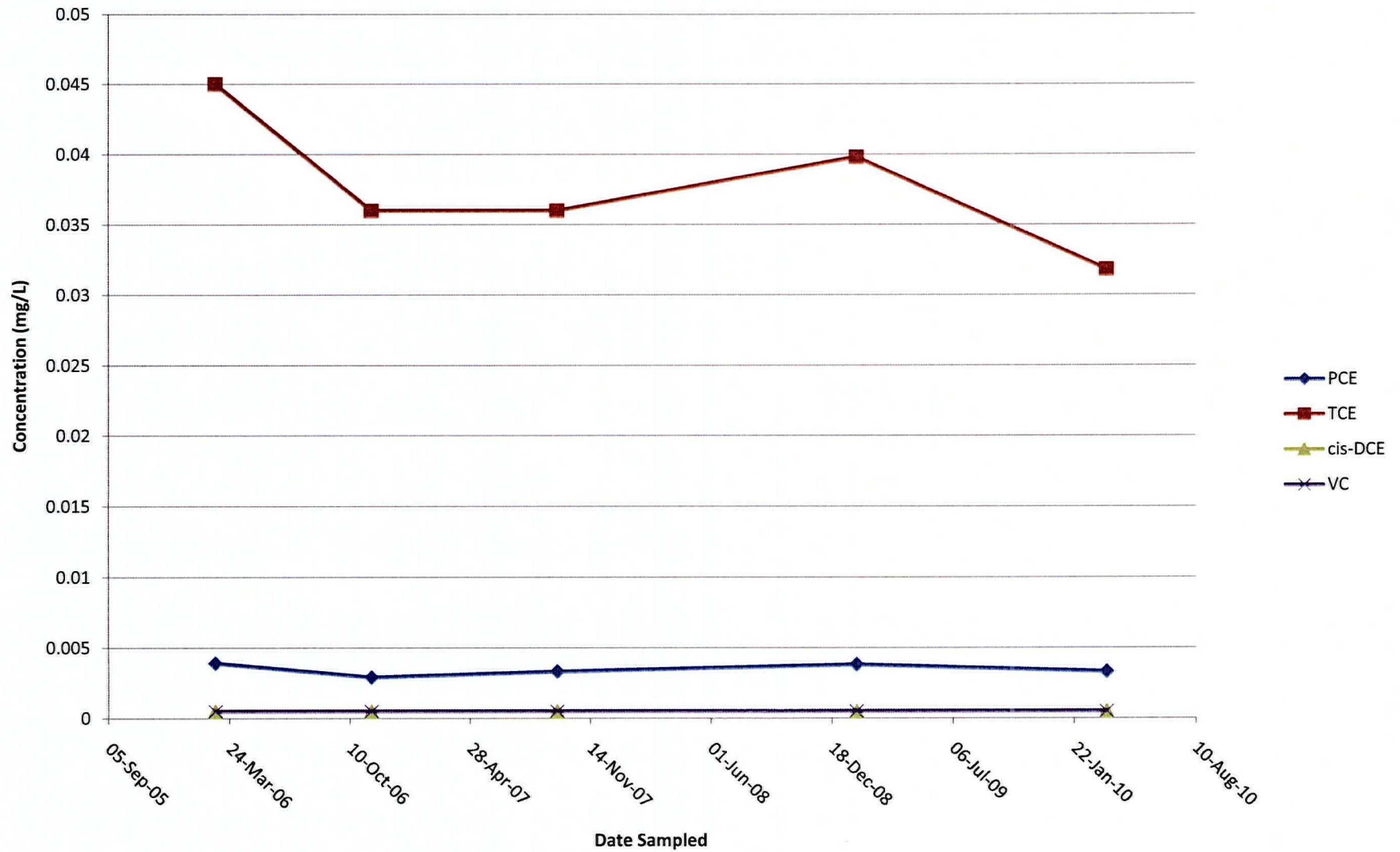
## Time vs. Concentration in MW-4-2



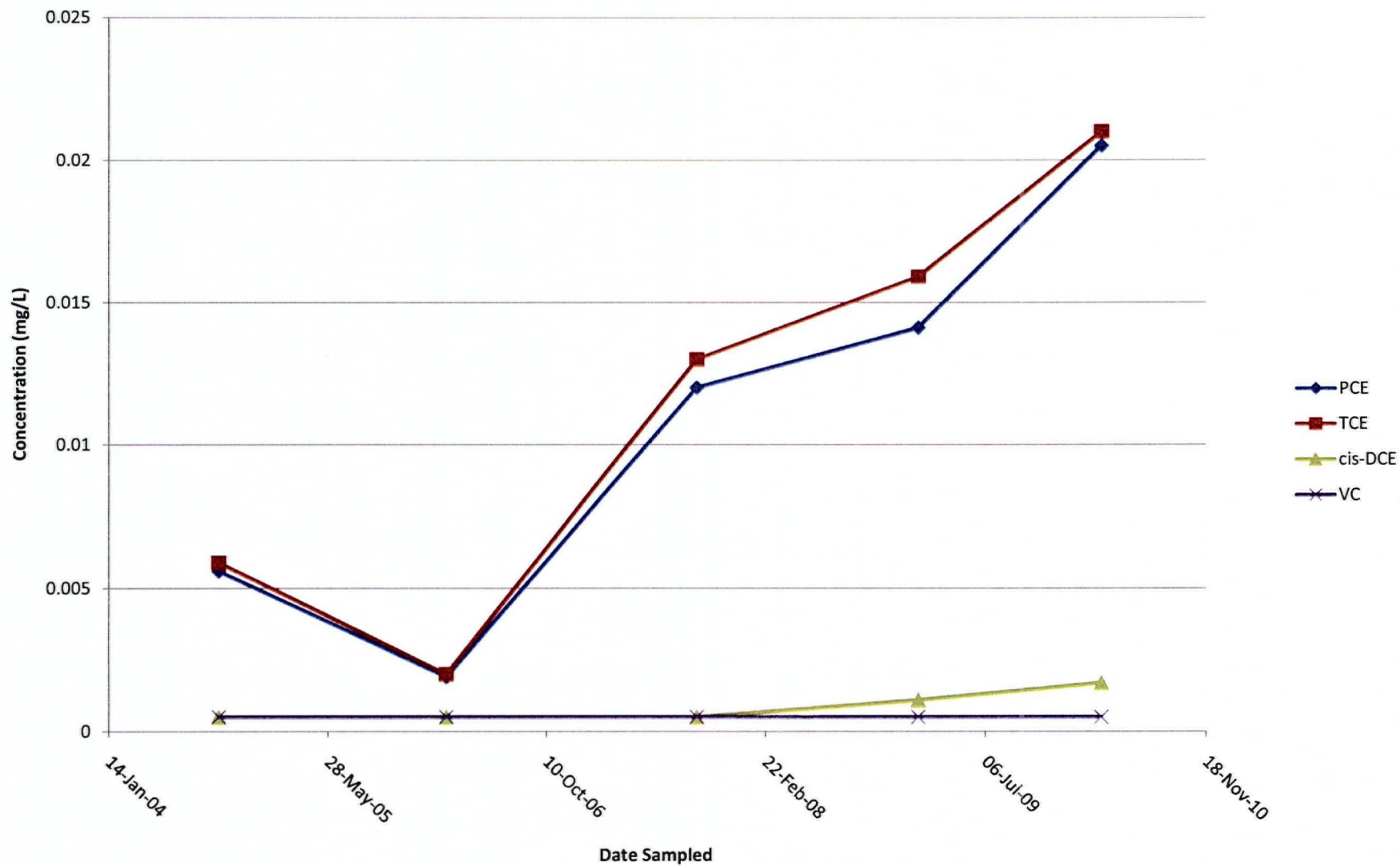
### Time vs. Concentration in SW-3



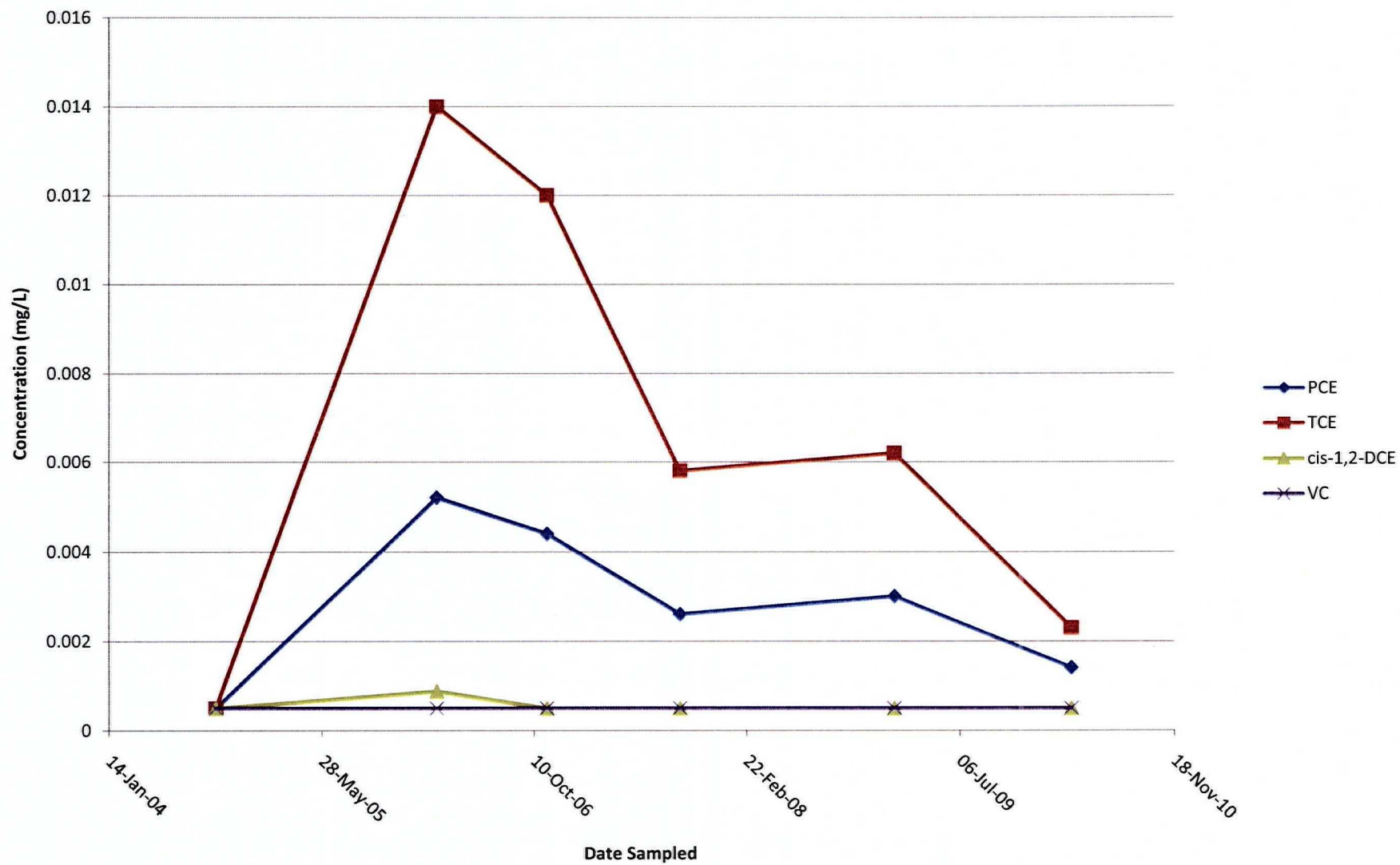
## Time vs. Concentration in SW-4



## Time vs. Concentration in SW-108



## Time vs. Concentration in SW-201

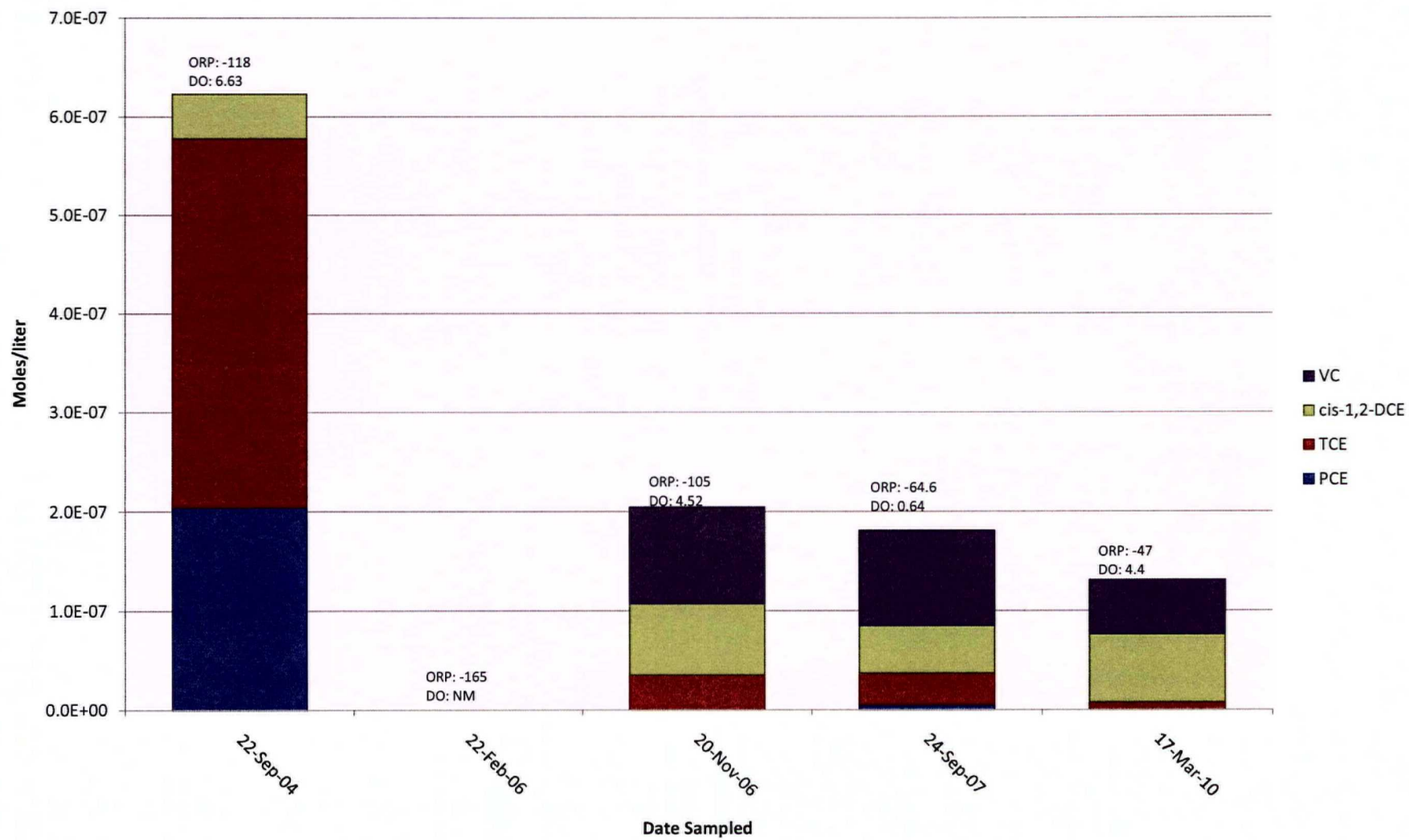


## **Appendix C**

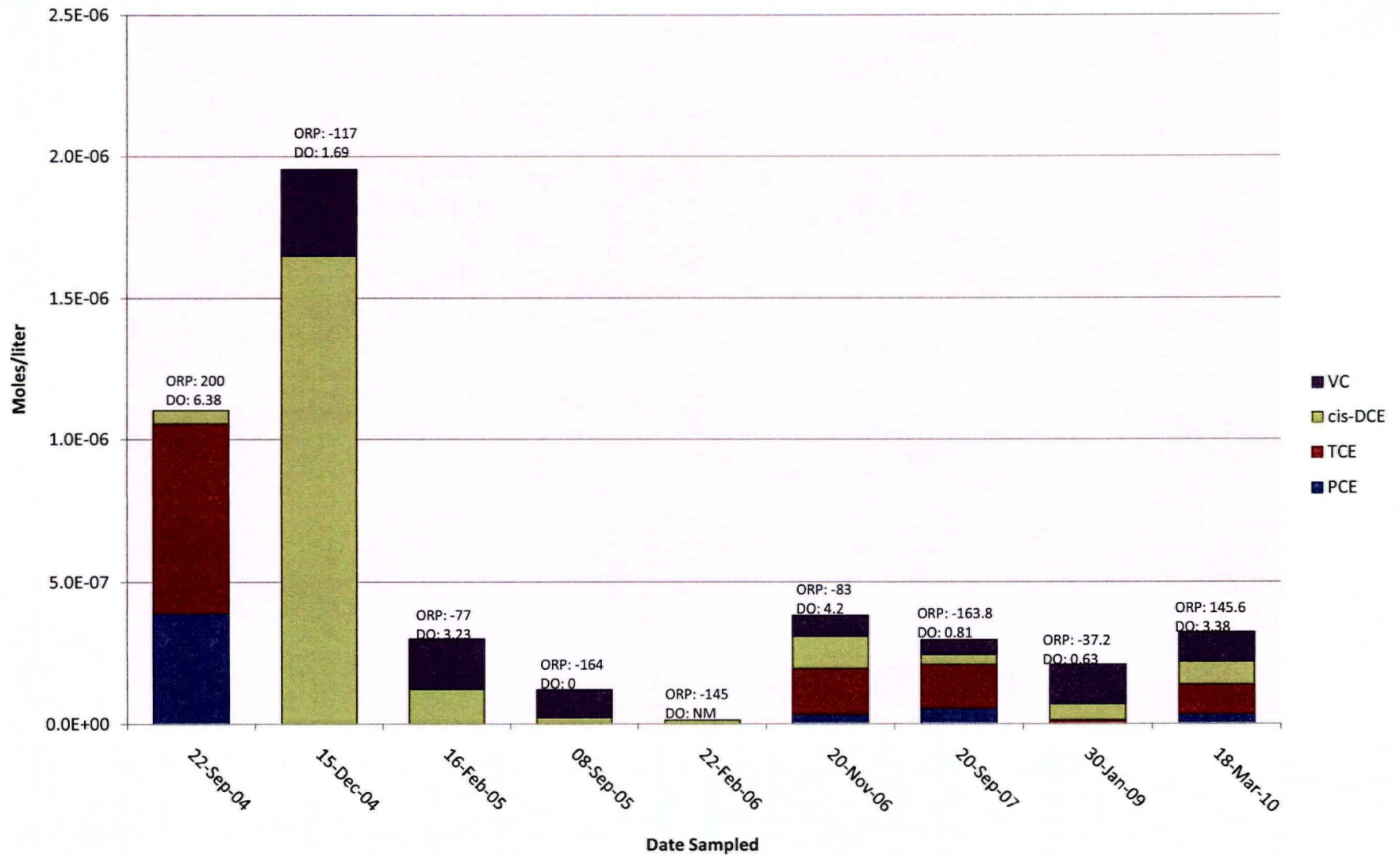
# **Volatile Organic Compound Molar Ratio Graphs**



## VOC Molar Ratios in A-1

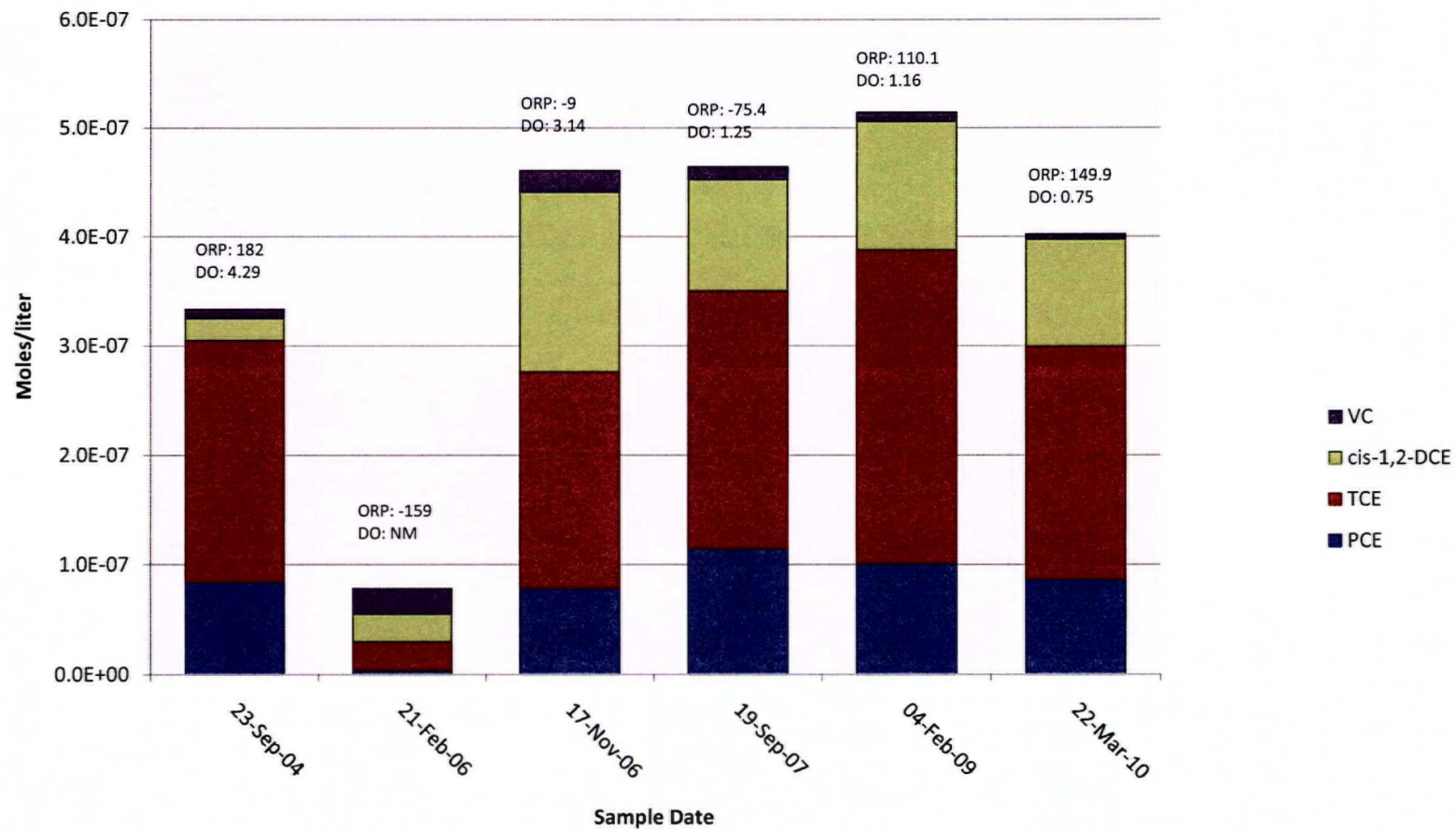


## VOC Molar Ratios in A-2

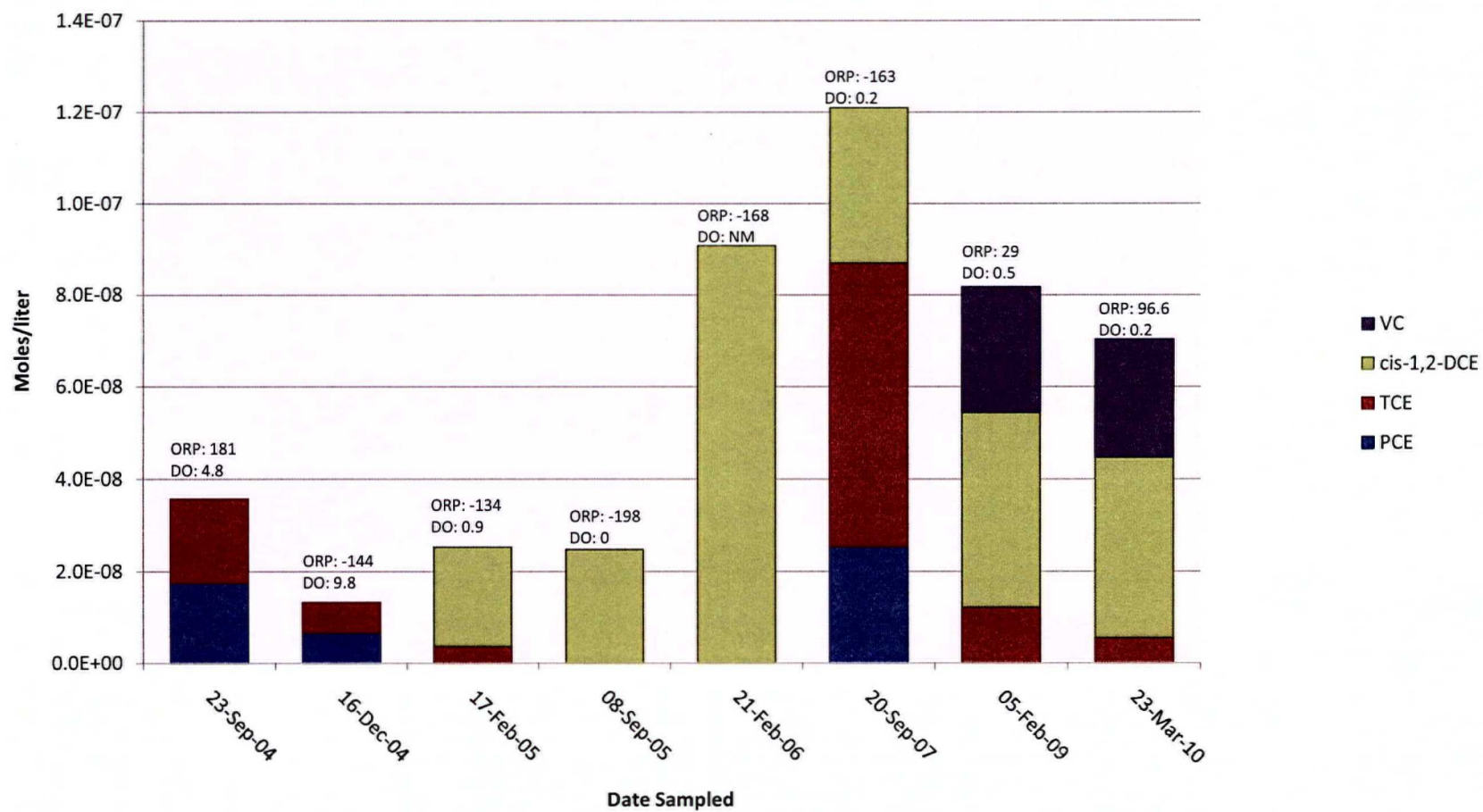




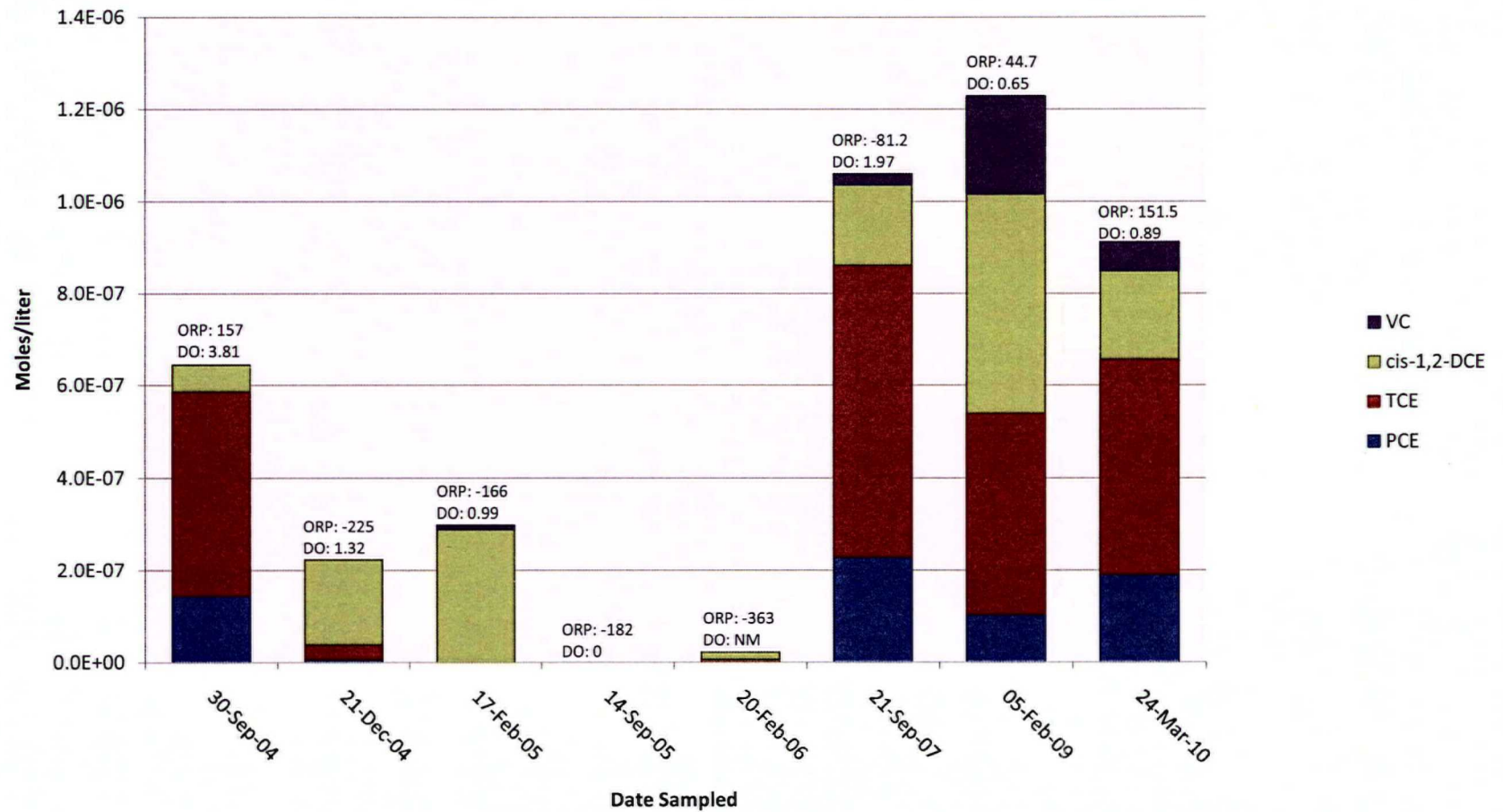
## VOC Molar Ratios in A-3



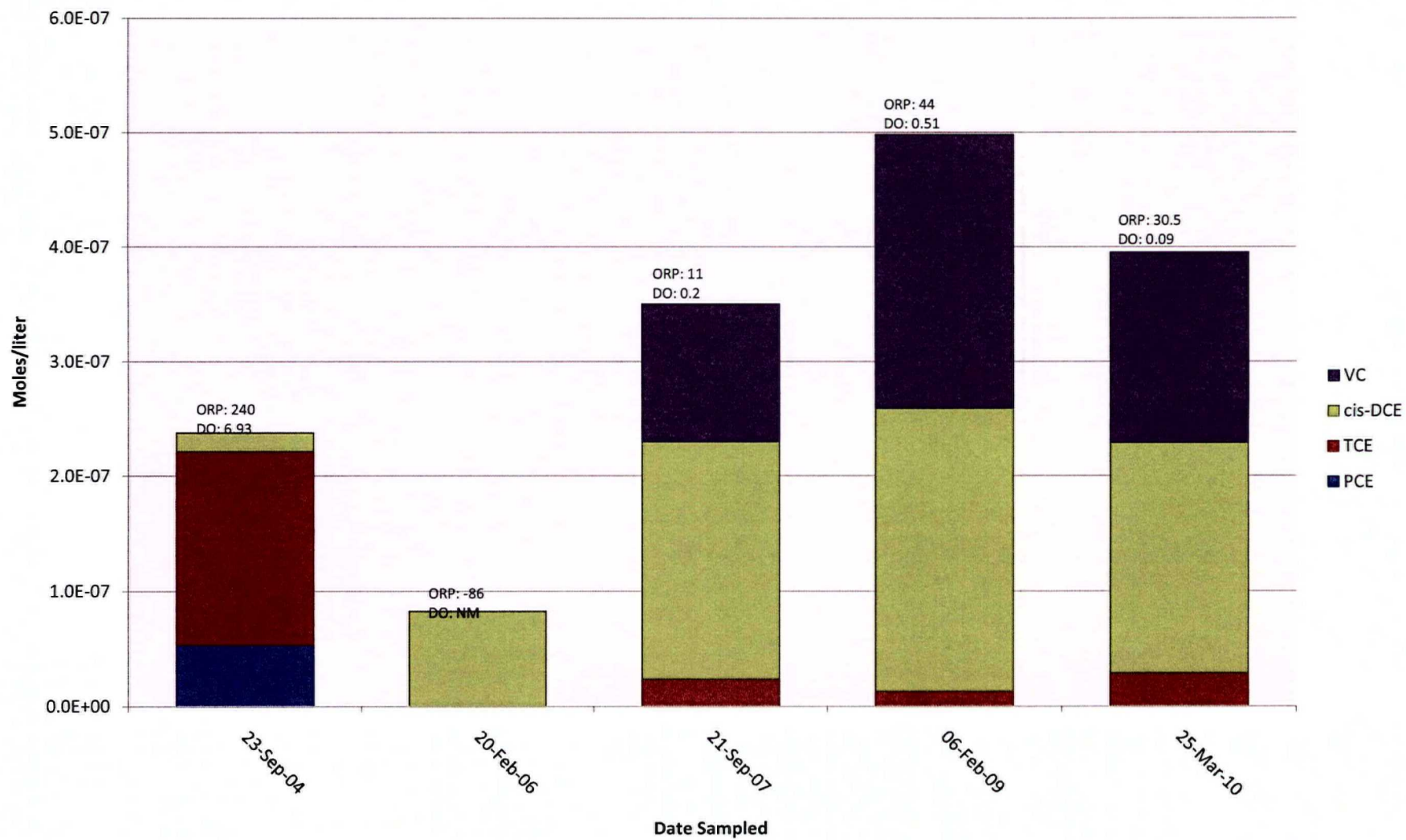
## VOC Molar Ratios in A-4



## VOC Molar Ratios in A-5

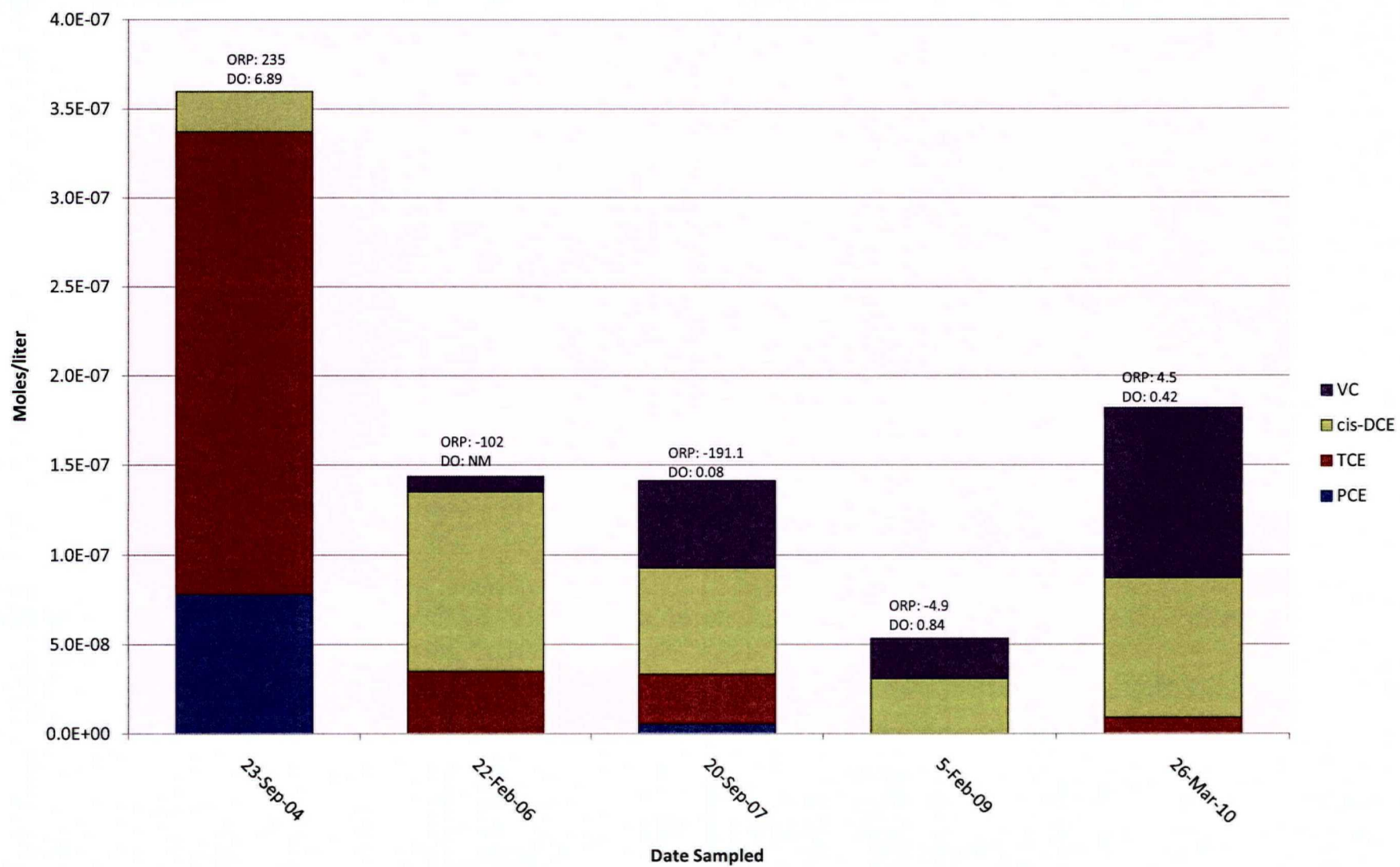


## VOC Molar Ratios in A-6

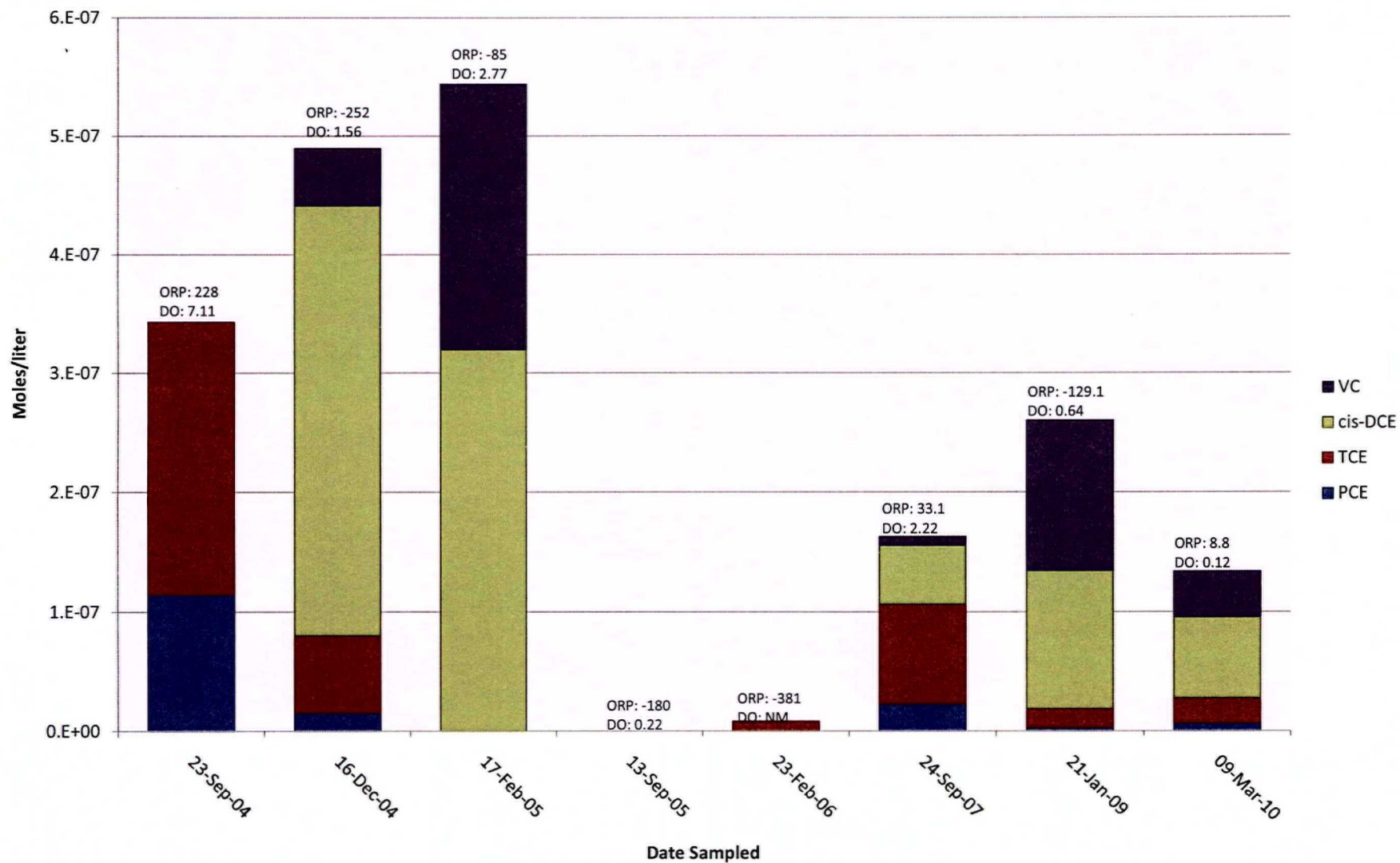




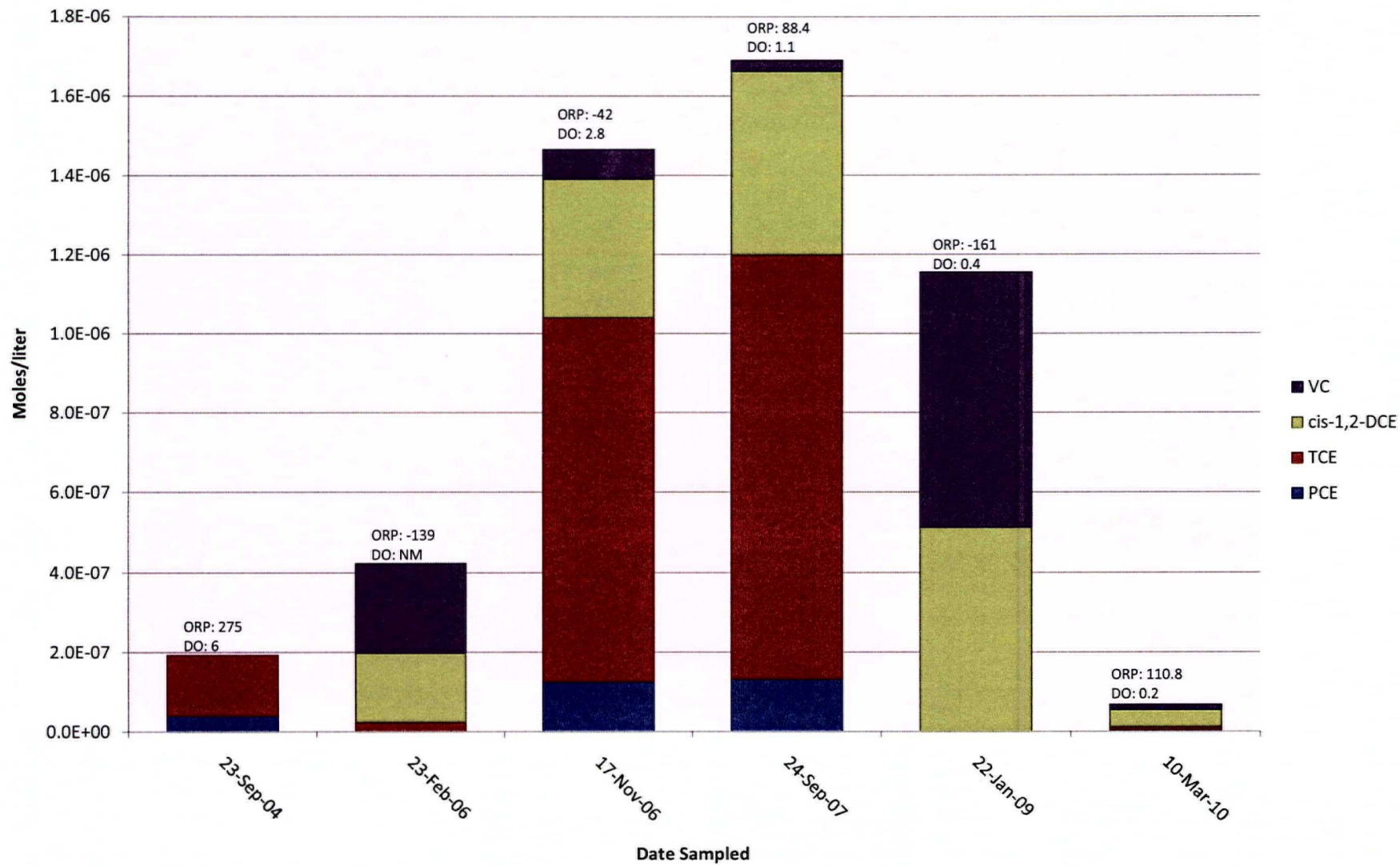
## VOC Molar Ratios in A-7



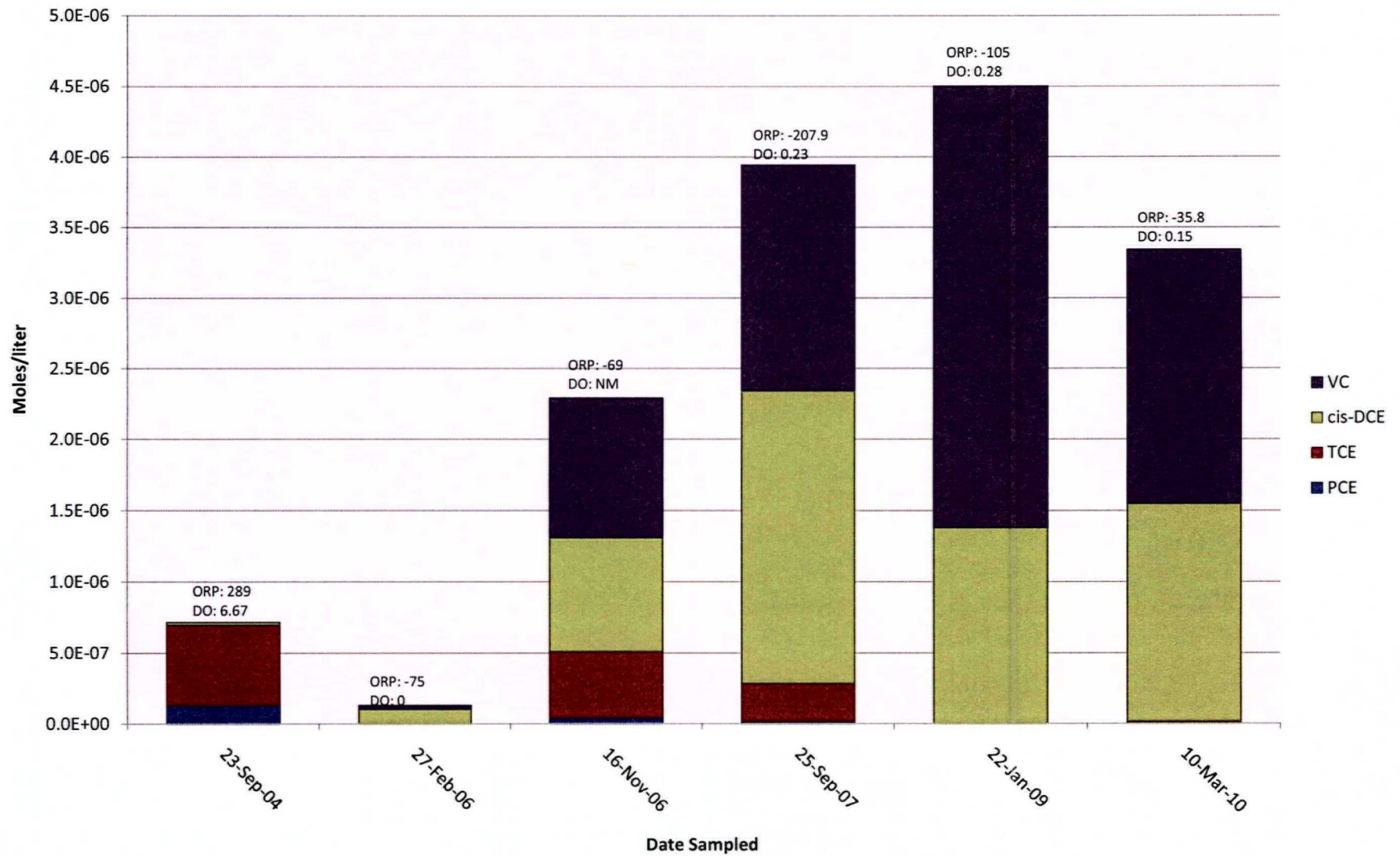
## VOC Molar Ratios in B-1



## VOC Molar Ratios in B-2

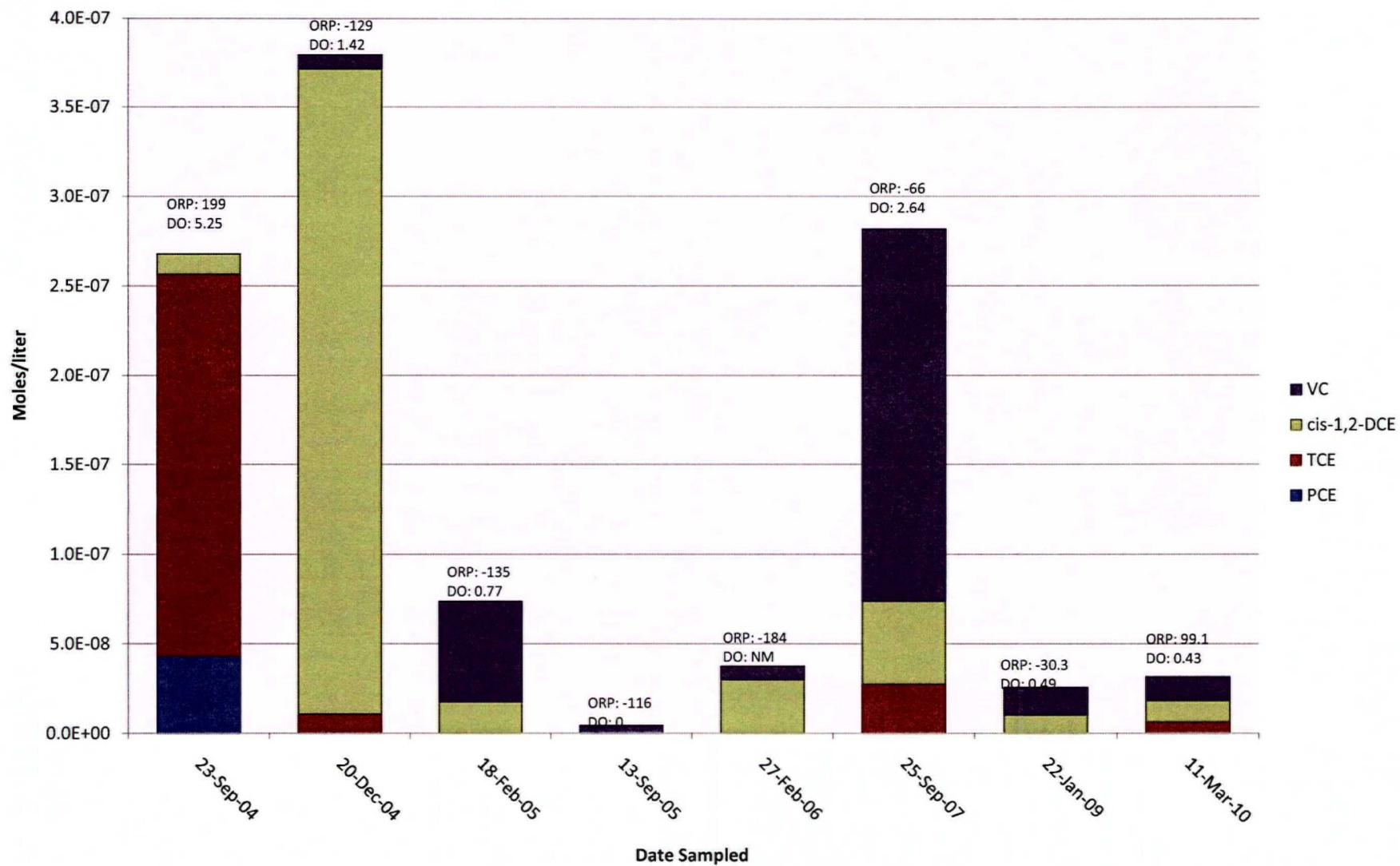


## VOC Molar Ratios in B-3

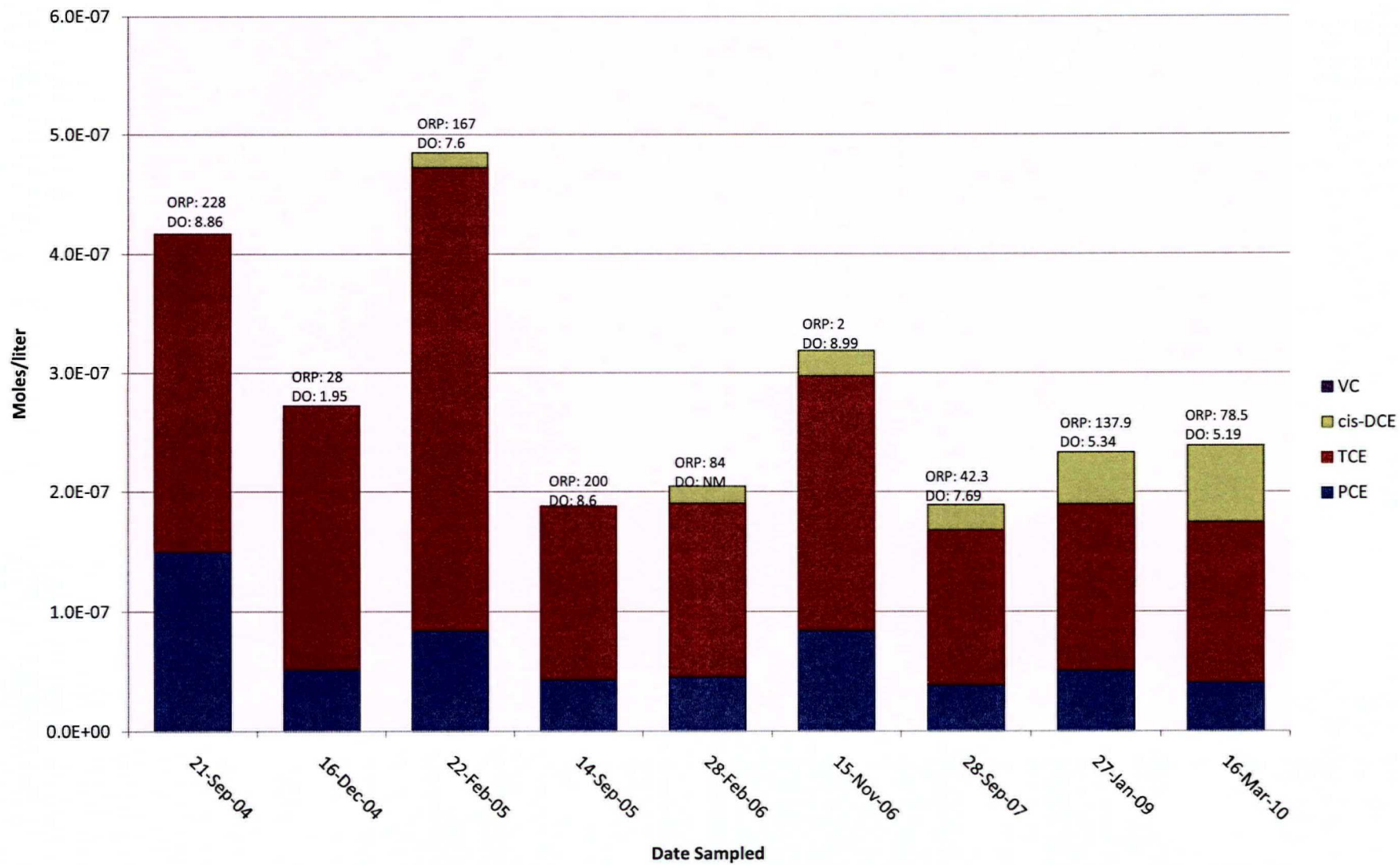




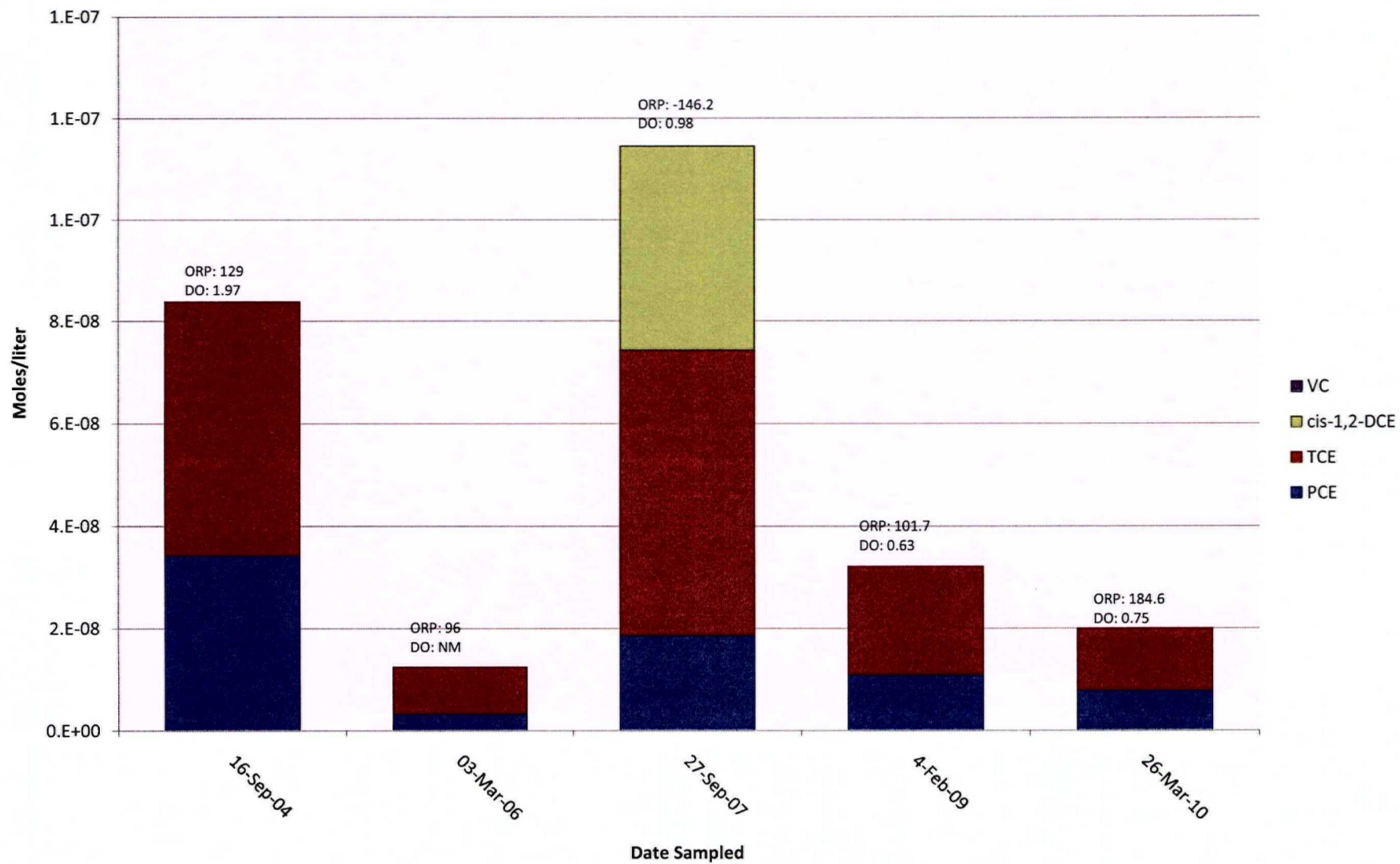
## VOC Molar Ratios in B-4



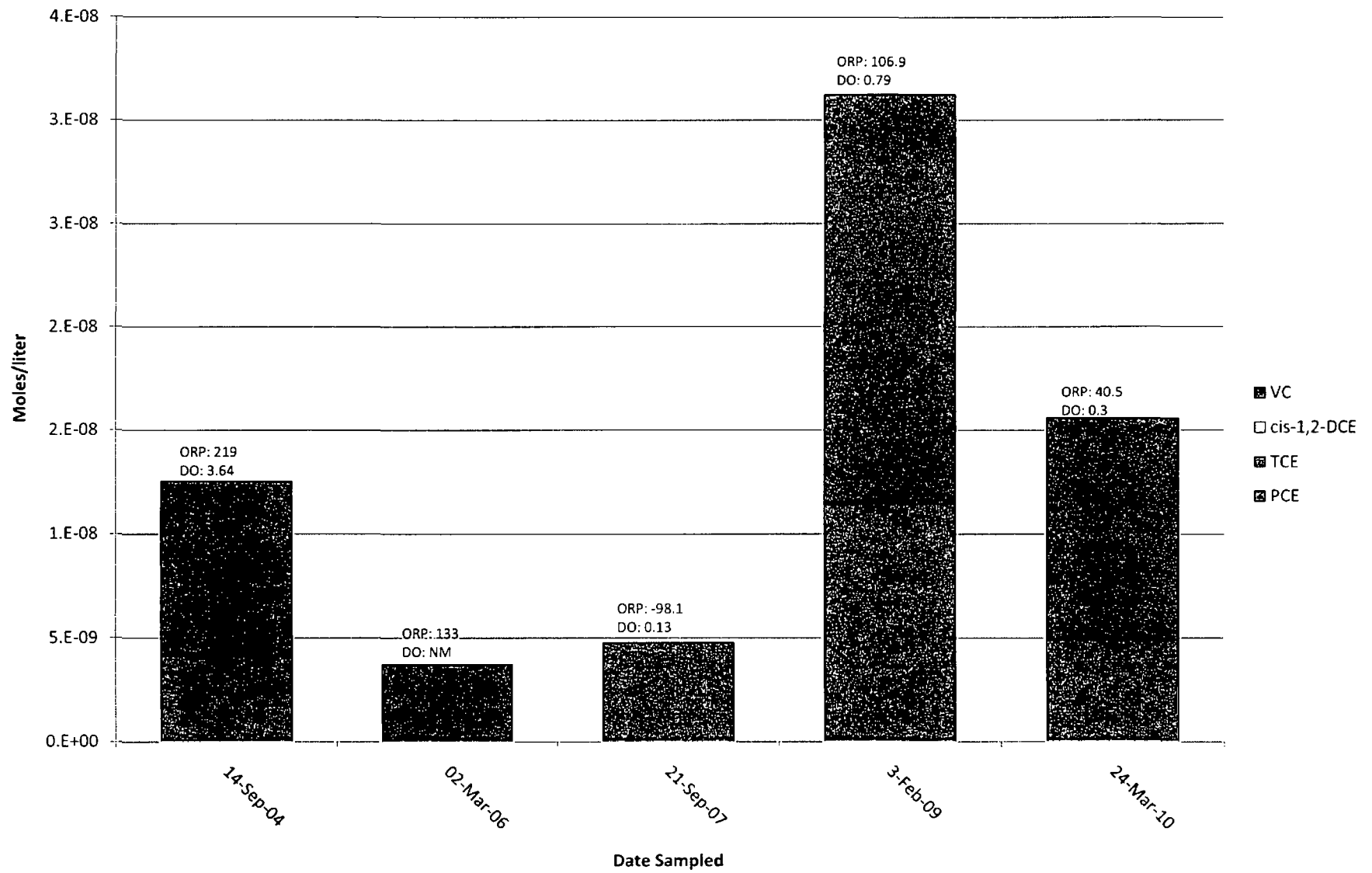
## VOC Molar Ratios in BW-2



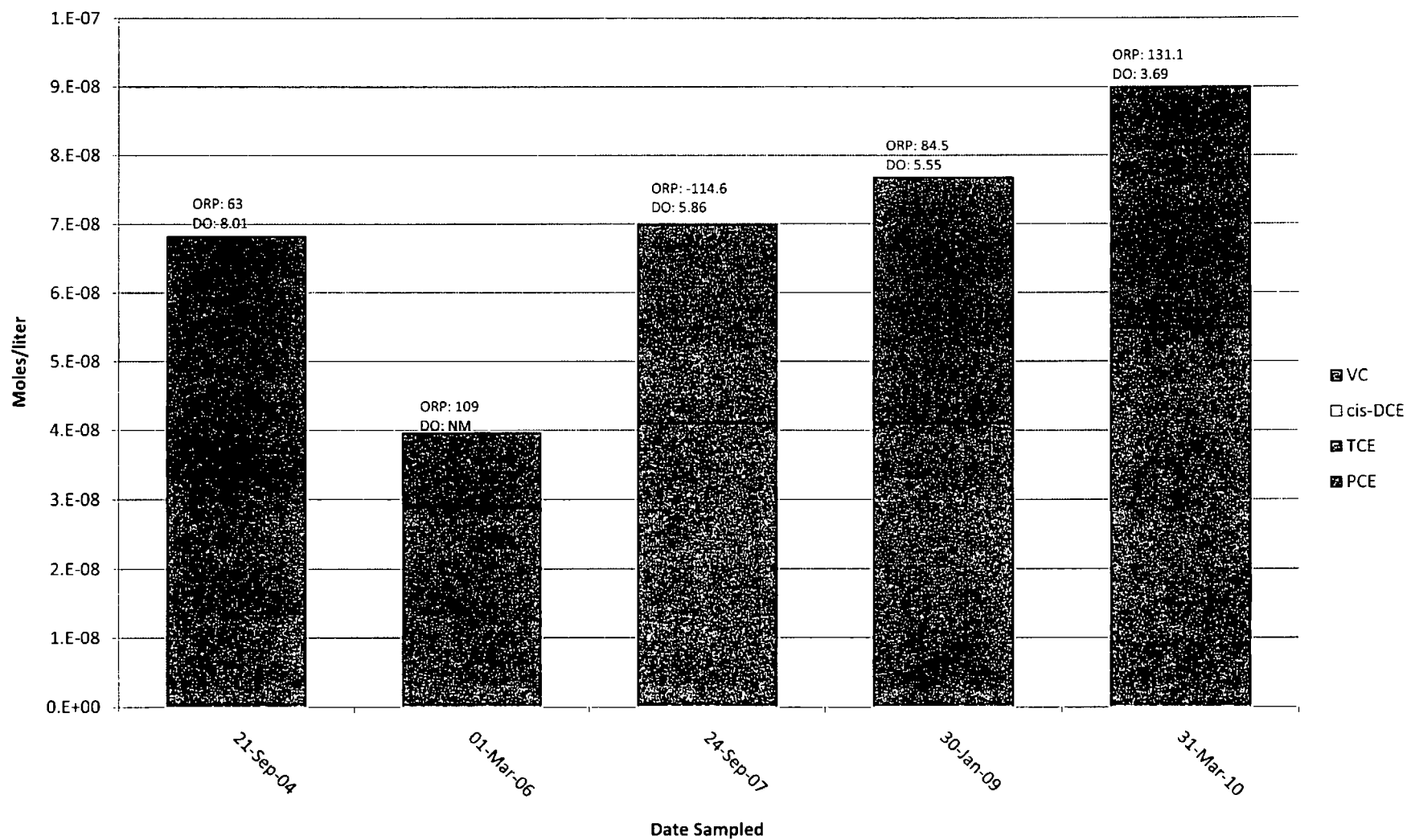
## VOC Molar Ratios in BW-108



## VOC Molar Ratios in BW-201

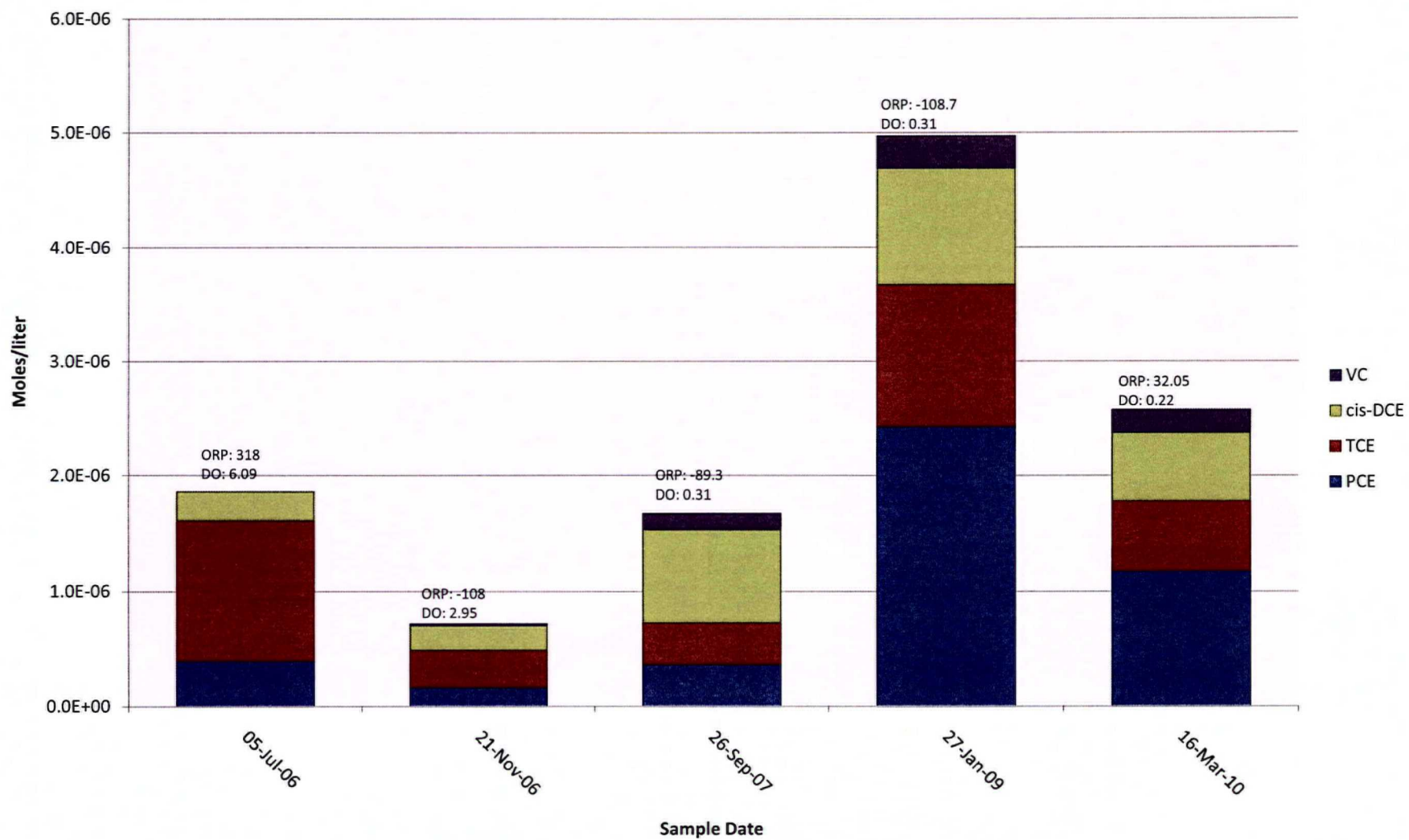


## VOC Molar Ratios in BW-202

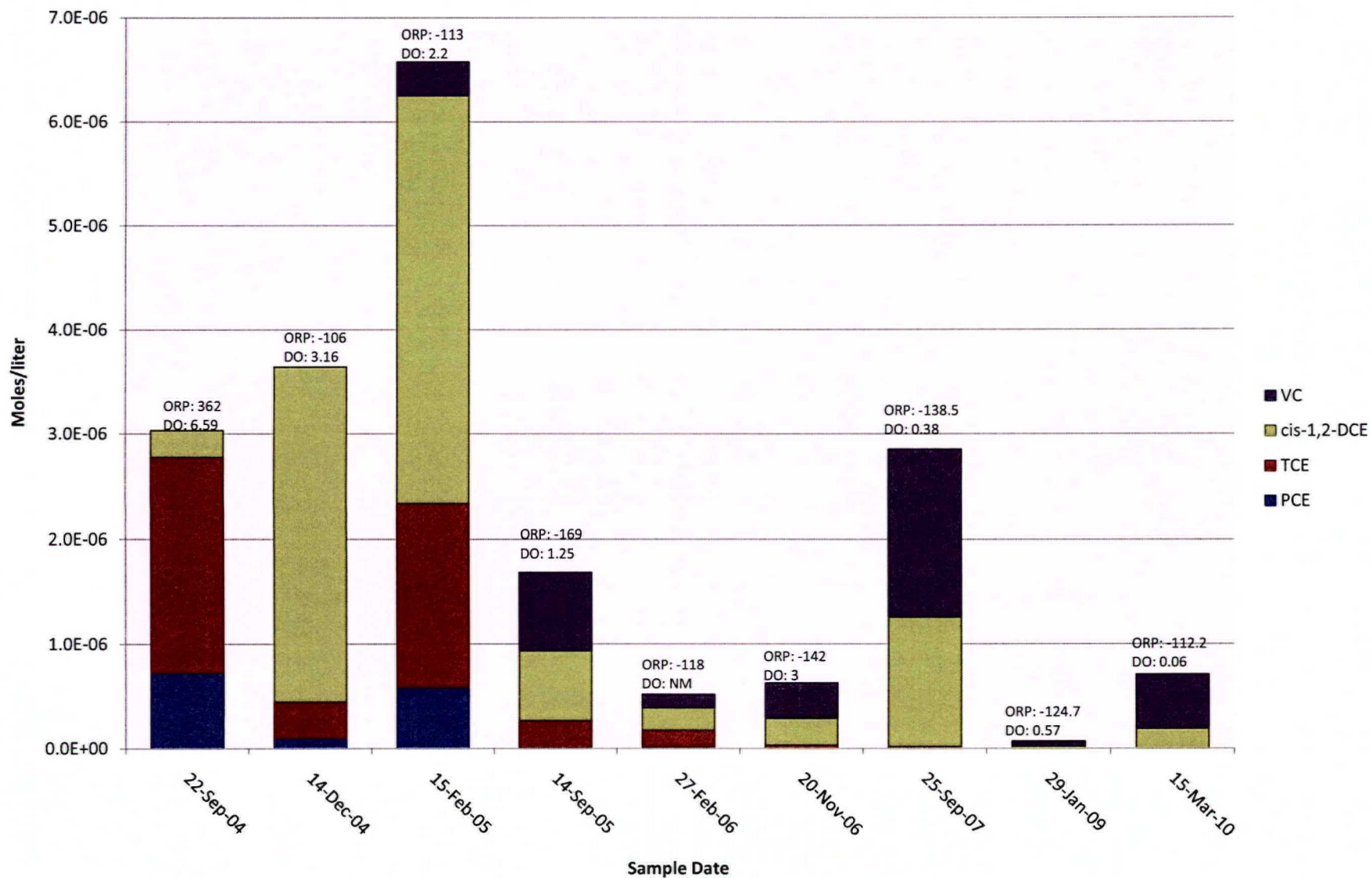




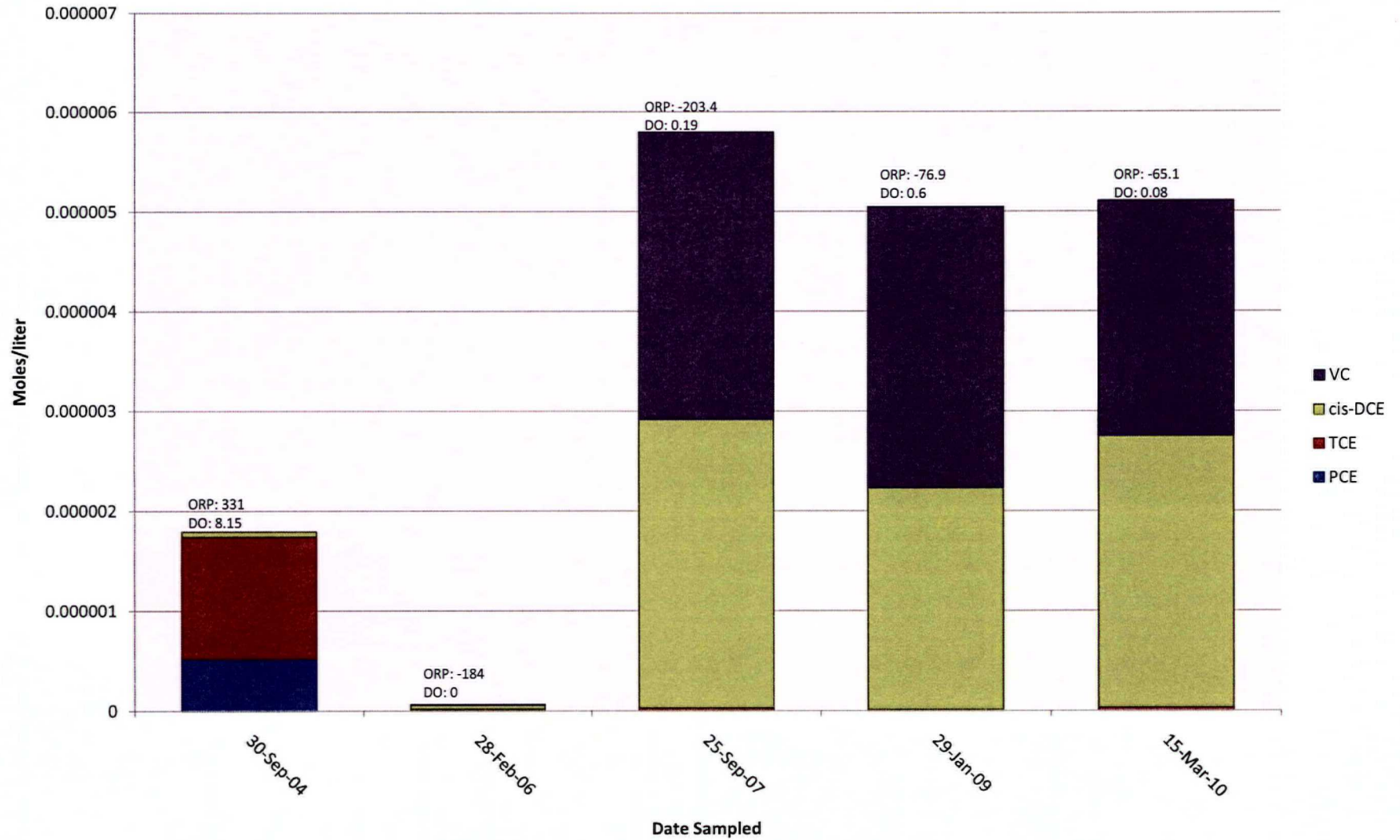
## VOC Molar Ratios in DP-2-1



## VOC Molar Ratios in DP-3-1

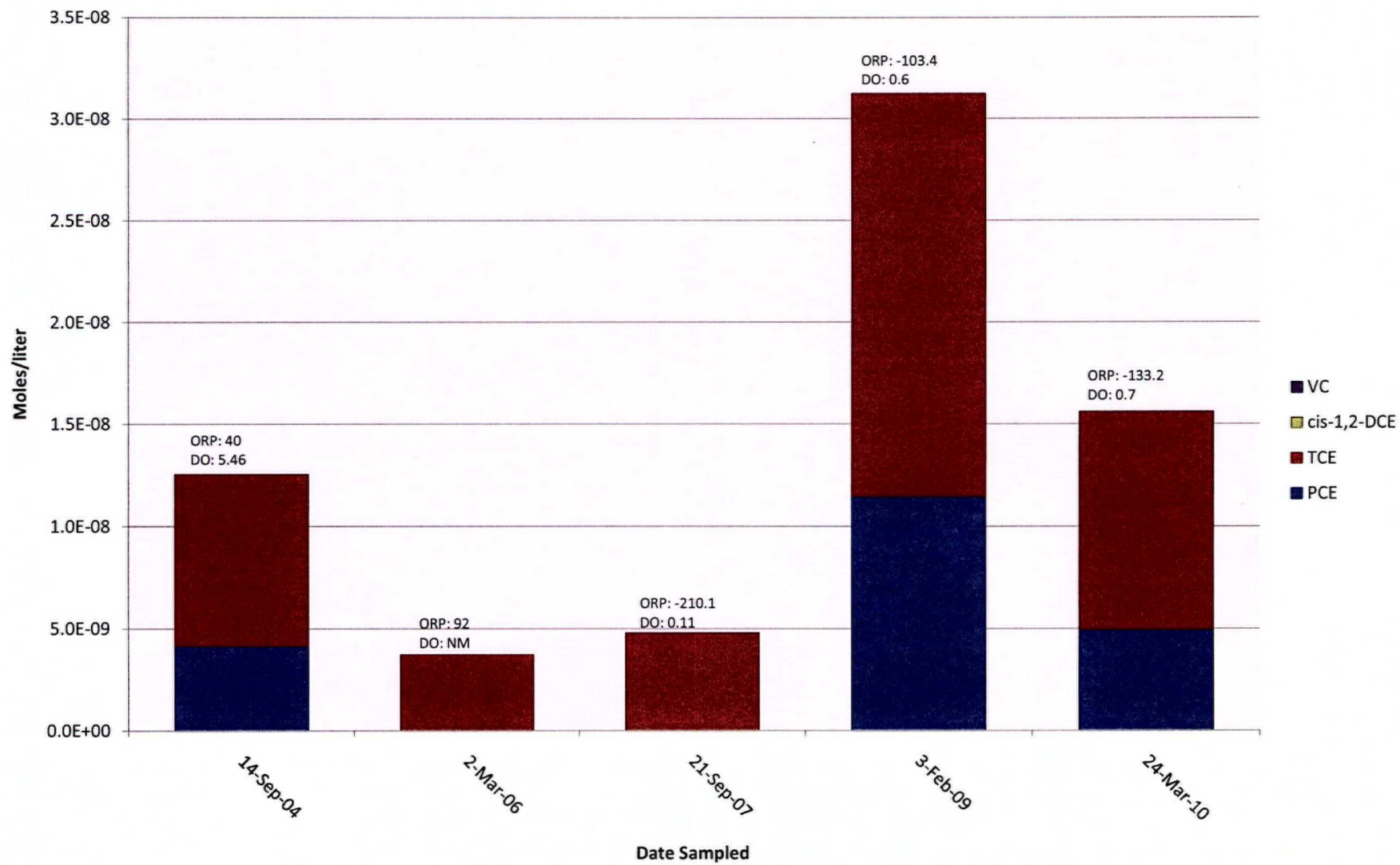


## VOC Molar Ratios in DP-3-2

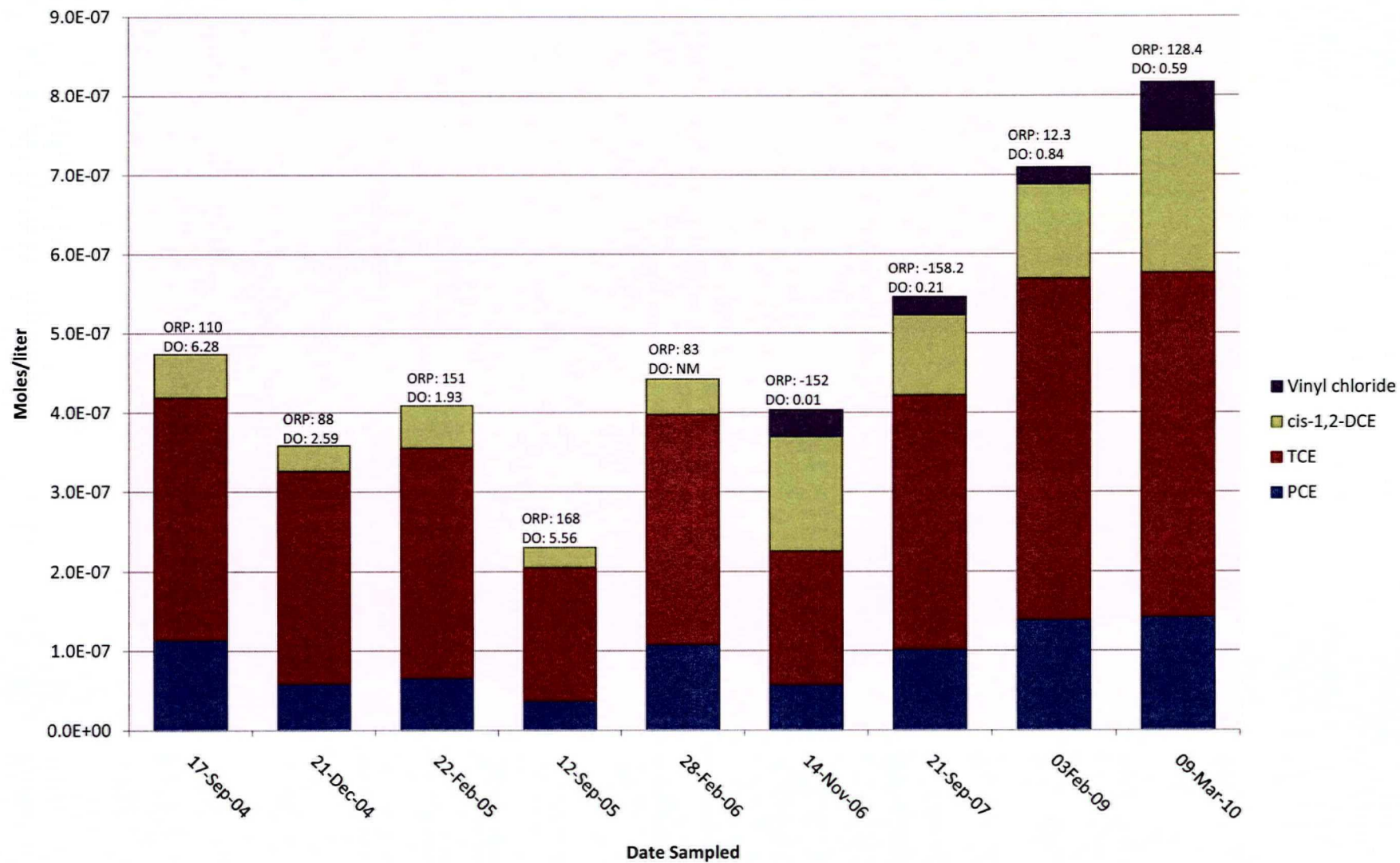




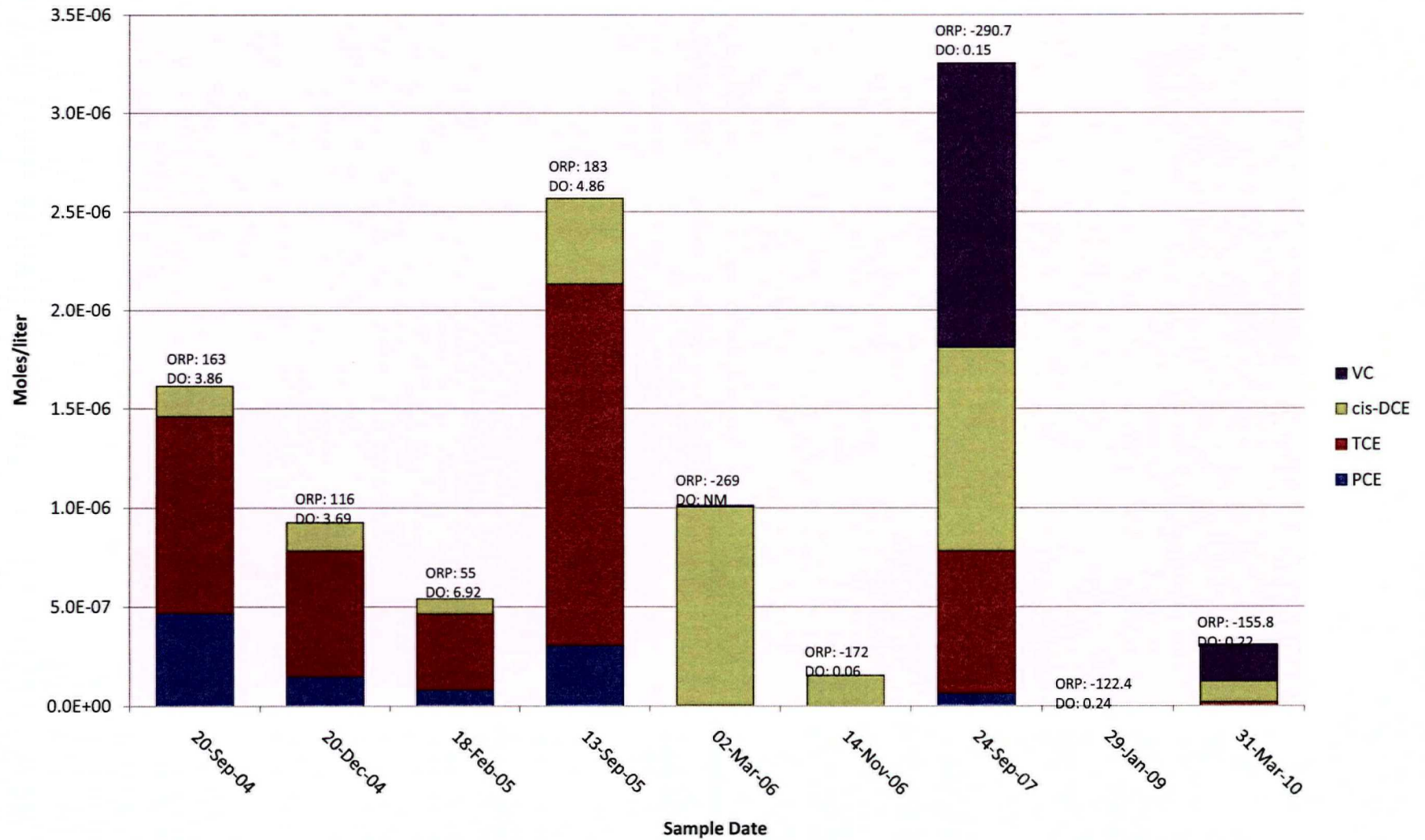
## VOC Molar Ratios in MW-2-1



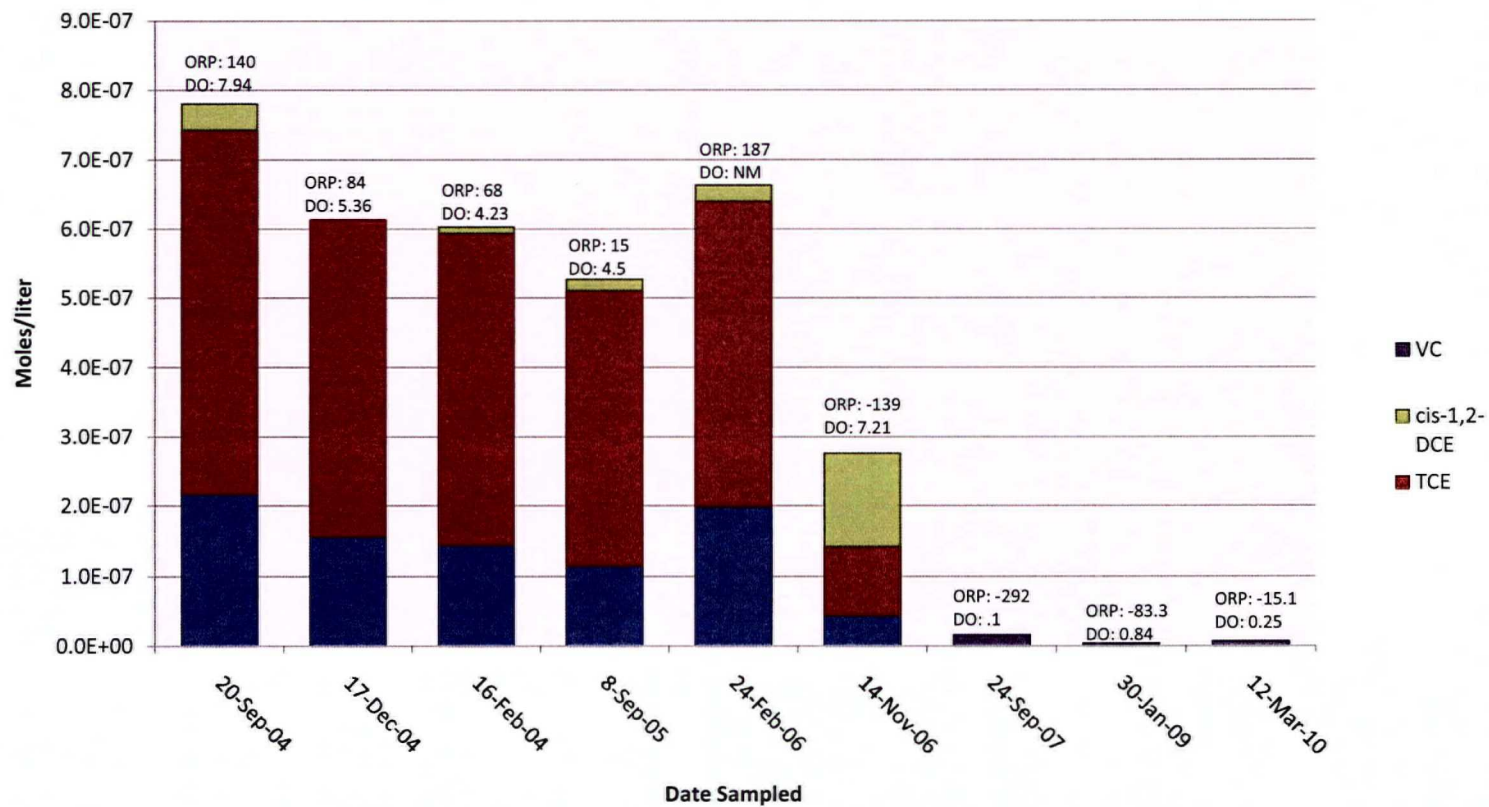
## VOC Molar Ratios in MW-2-2



## VOC Molar Ratios in MW-3D

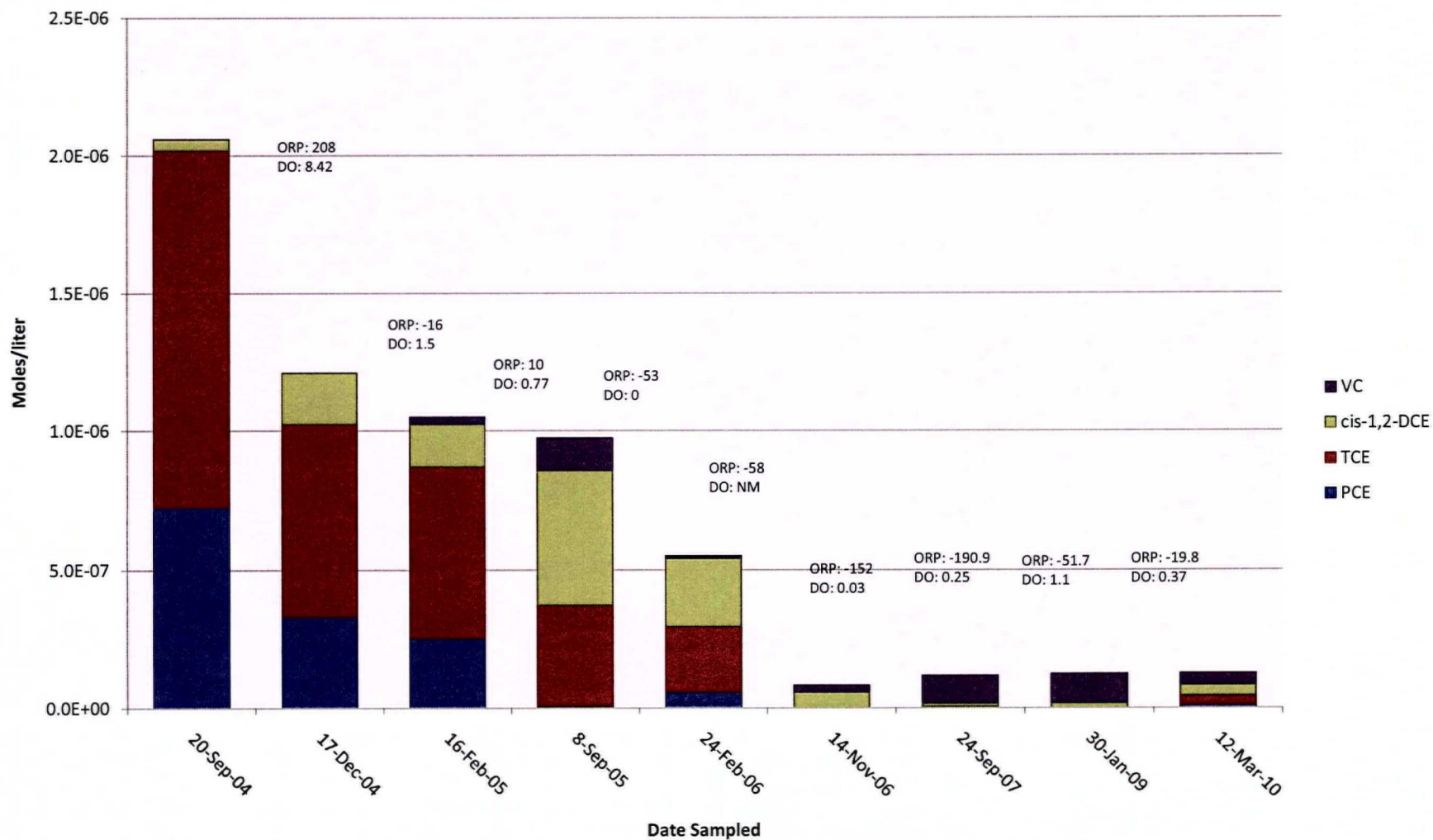


## VOC Molar Ratios in MW-4-1

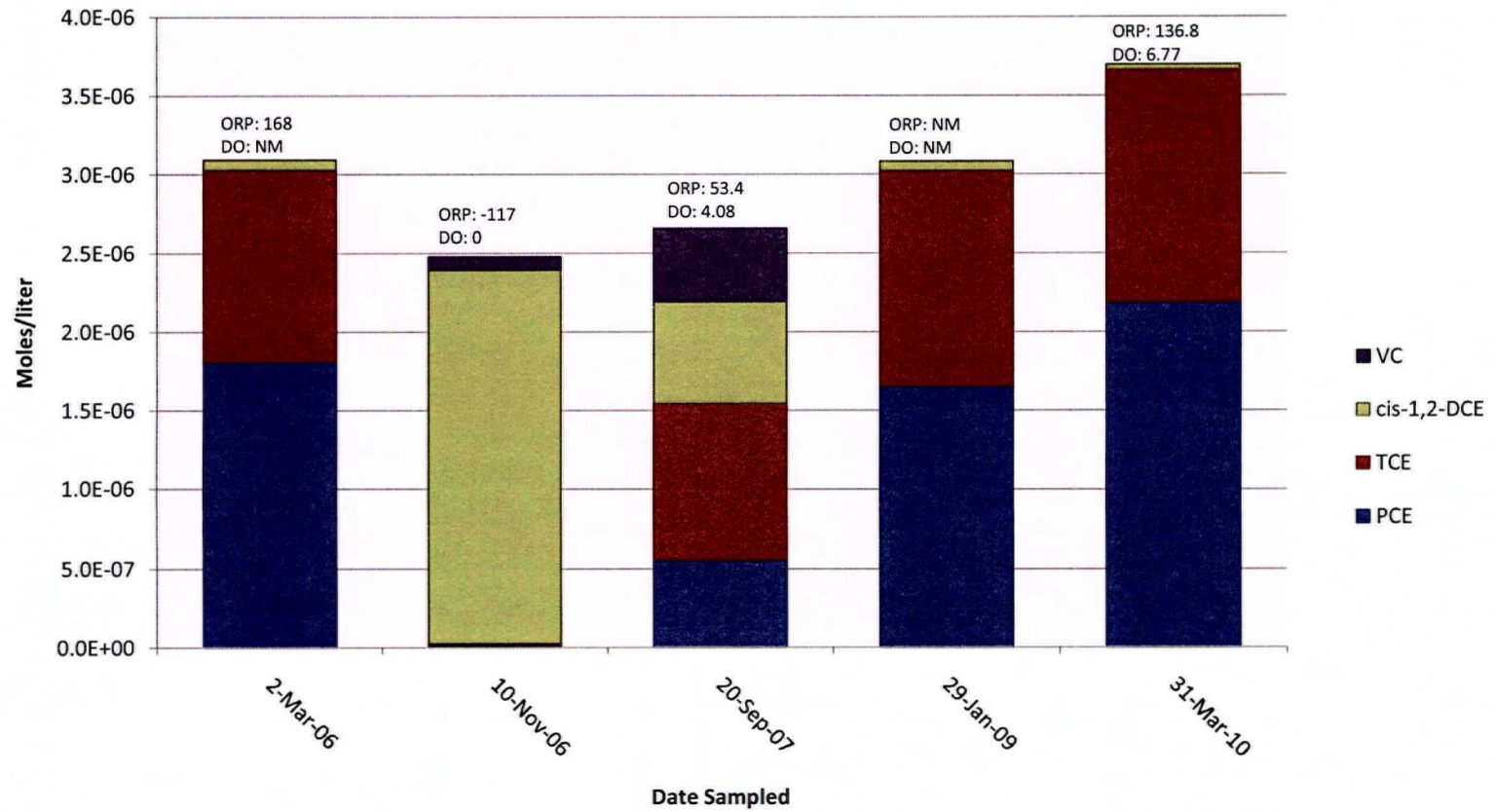




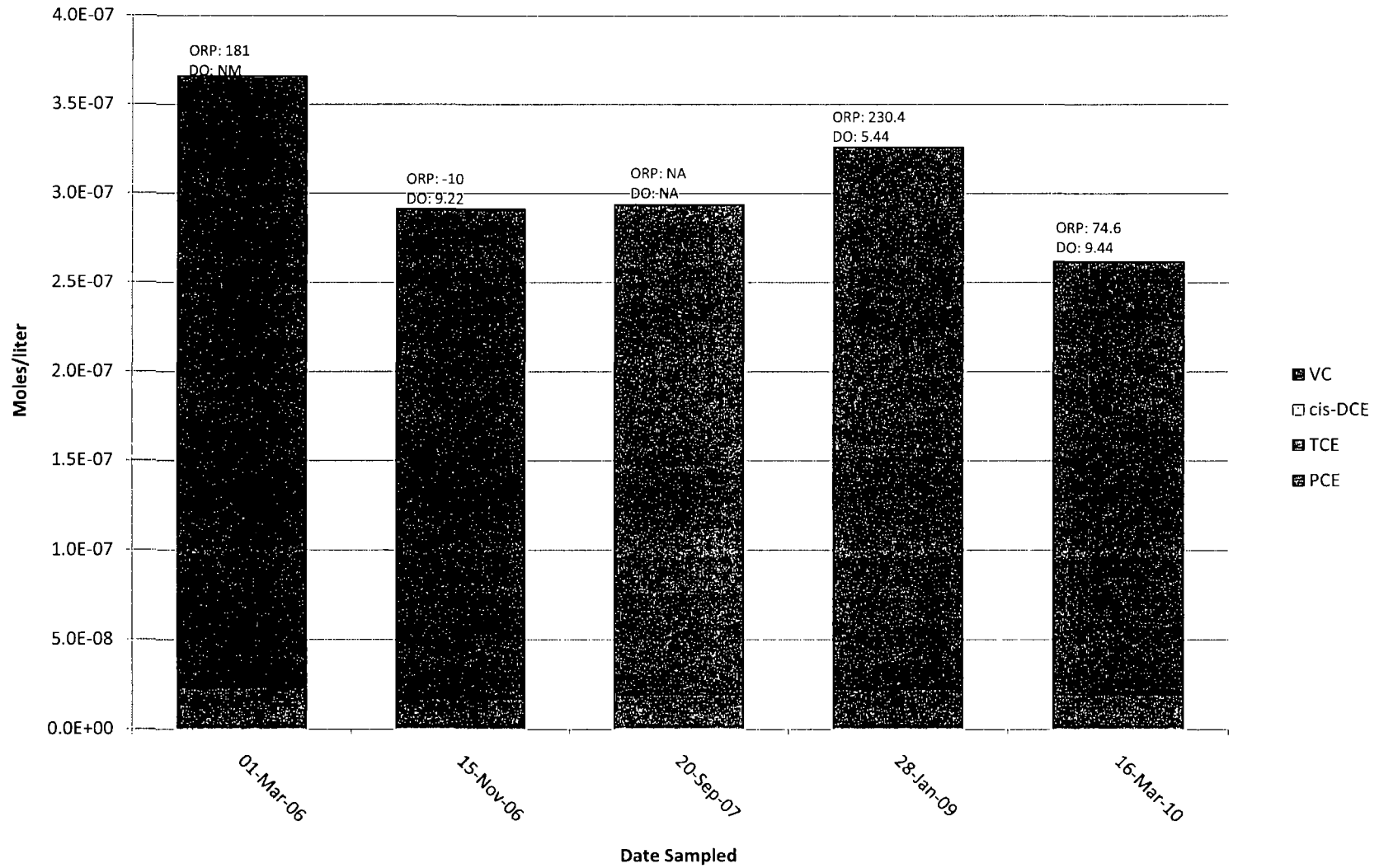
## VOC Molar Ratios in MW-4-2



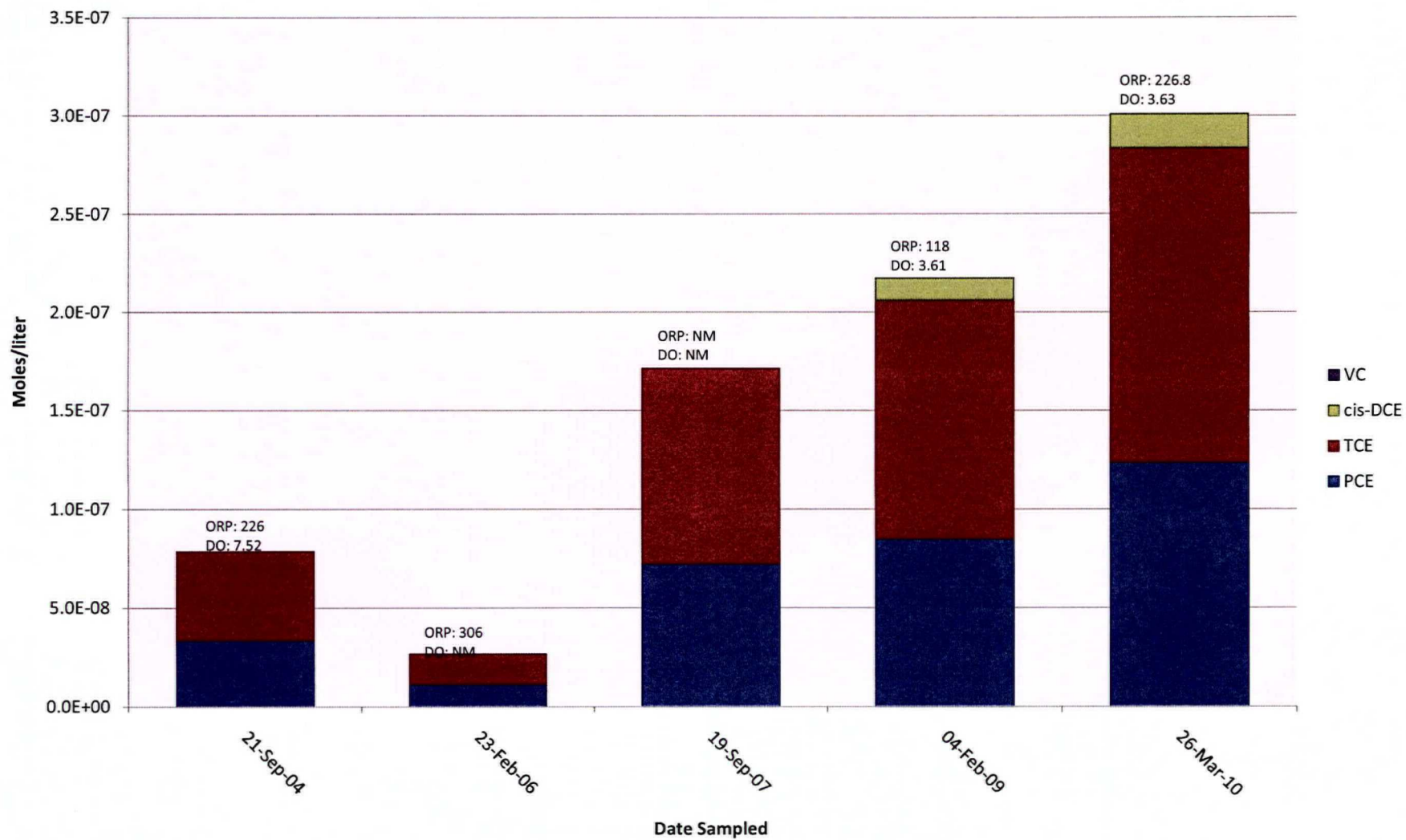
## VOC Molar Ratios in SW-3



## VOC Molar Ratios in SW-4

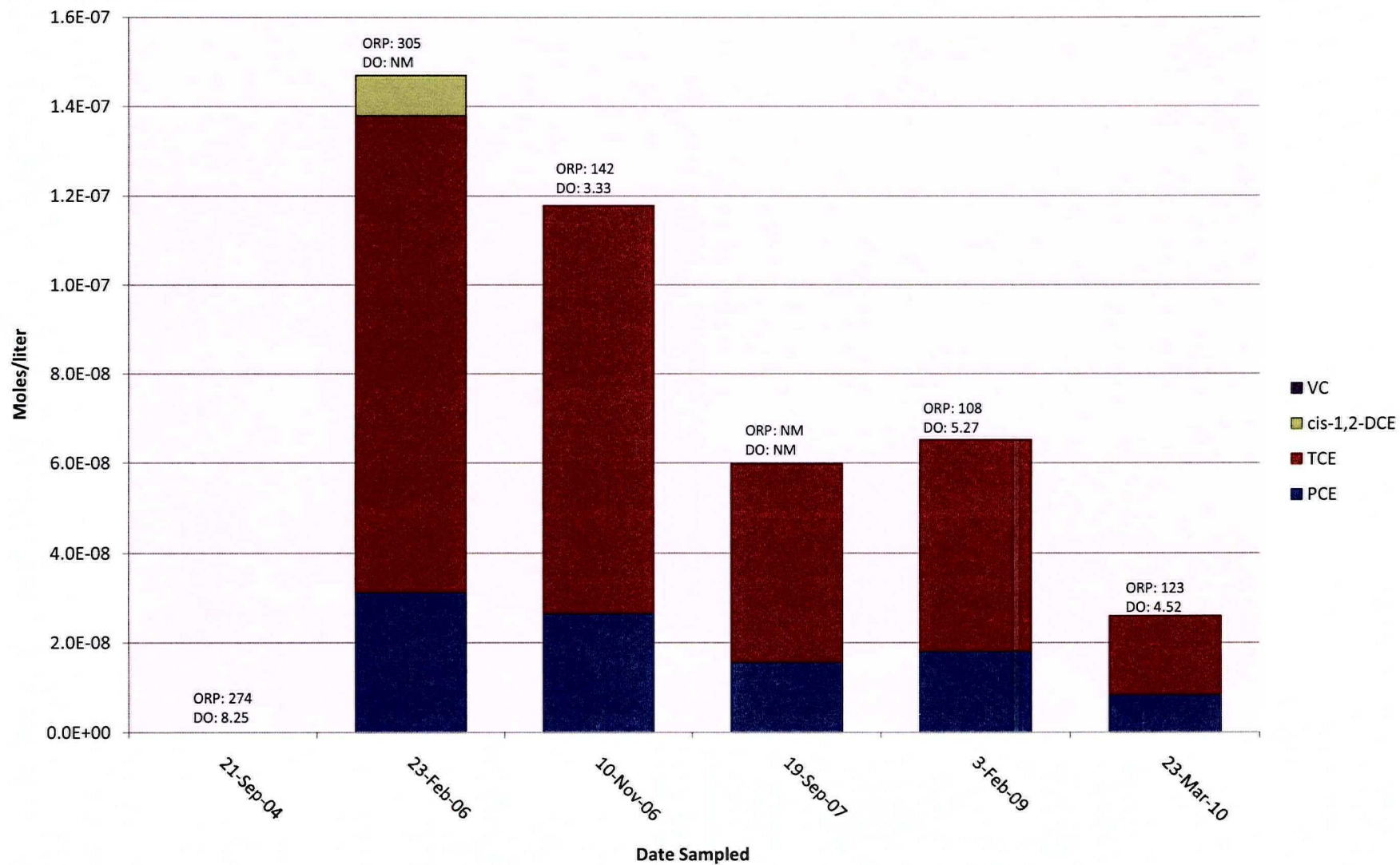


## VOC Molar Ratios in SW-108





## VOC Molar Ratios in SW-201



## Appendix D

### Histograms

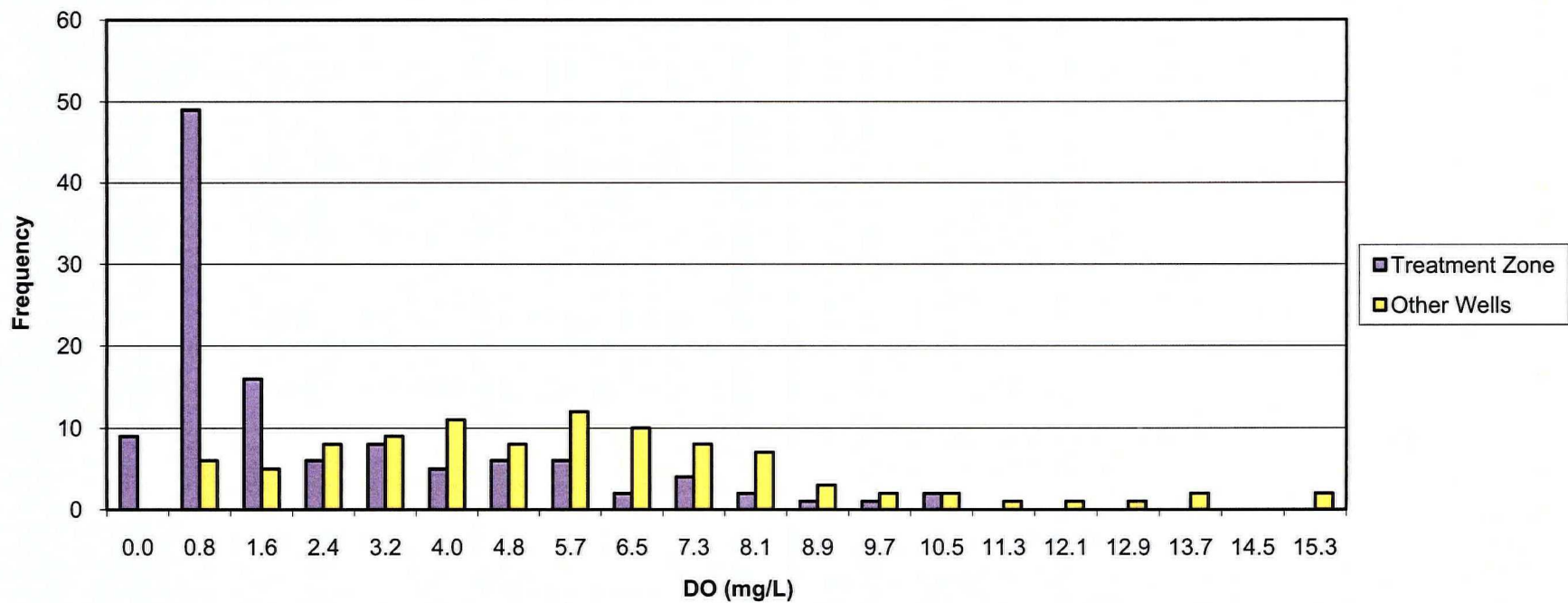
---

**Table D-1**  
**Well Grouping for Histograms**

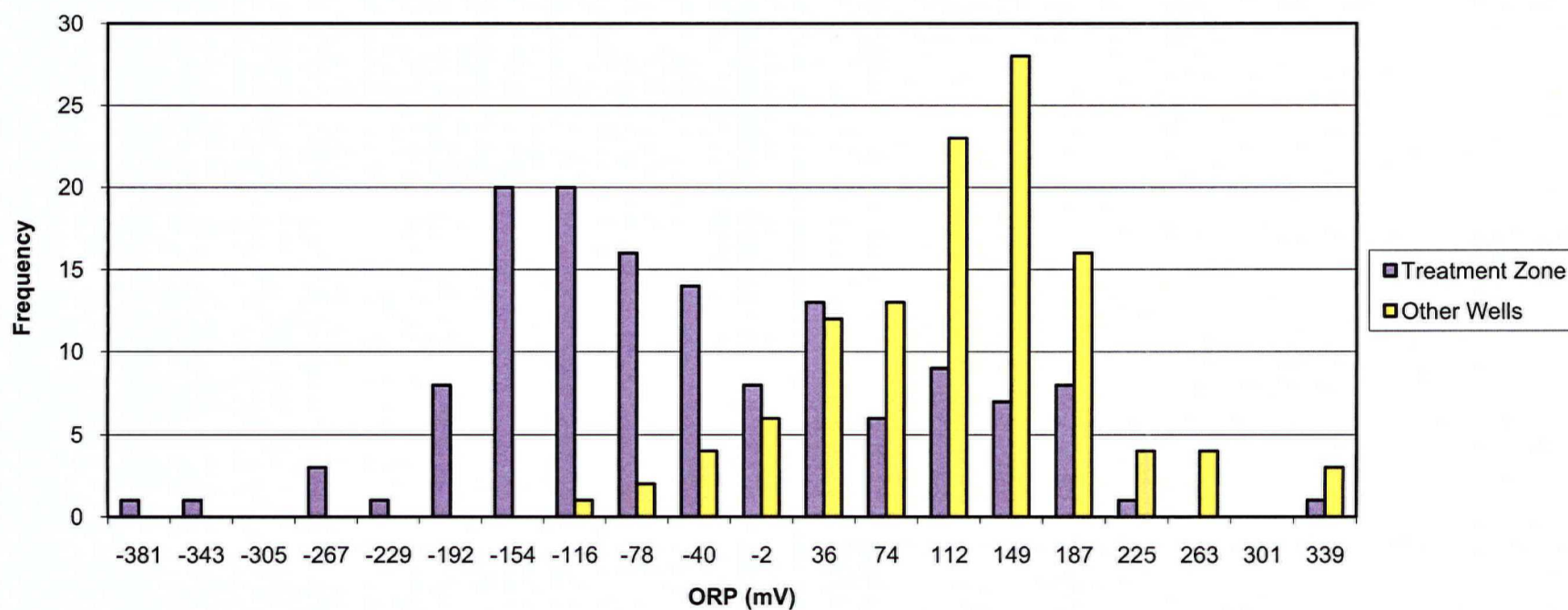
<b>WELLS LOCATED WITHIN ACTIVE TREATMENT ZONE<sup>(1)</sup></b>	<b>WELLS LOCATED OUTSIDE ACTIVE TREATMENT ZONE<sup>(1)</sup></b>
A-1	BW-1
A-2	BW-3
A-3	BW-4
A-4	BW-105
A-5	BW-106
A-6	BW-108
A-7	BW-109
B-1	BW-110
B-2	BW-201
B-3	BW-202
B-4	MLW-1-1
BW-2	MLW-1-2
DP-2-1	MLW-1-3
DP-3-1	MLW-1-4
DP-3-2	MLW-3-2
MW-2-1	MLW-3-3
MW-2-2	MLW-3-4
MW-3D	SW-1
MW-4-1	SW-4
MW-4-2	SW-101
SW-3	SW-102
	SW-103
	SW-104
	SW-106
	SW-108
	SW-109
	SW-201
	SW-202

<sup>(1)</sup> The active treatment zone is described by those wells that were used for injection and those wells immediately adjacent to, or downgradient of the injection wells and expected to be within their ROI.

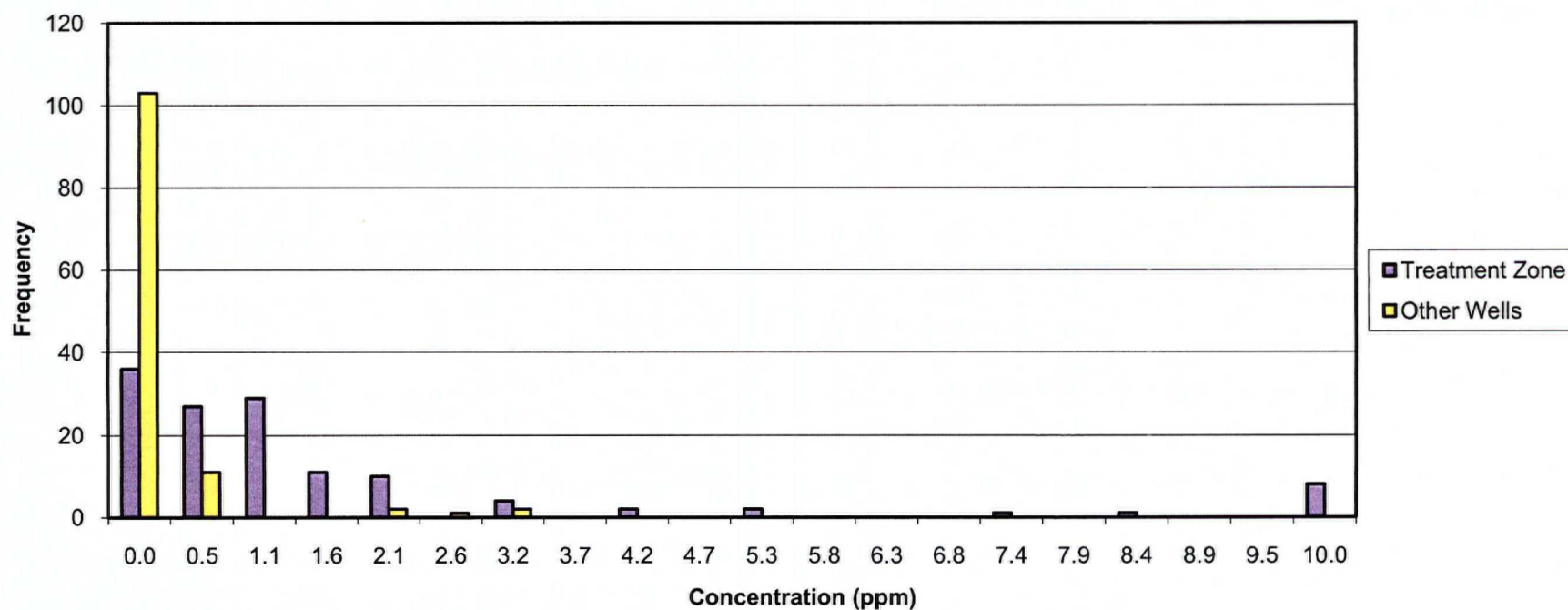
## Dissolved Oxygen Histogram December 2004 - March 2010



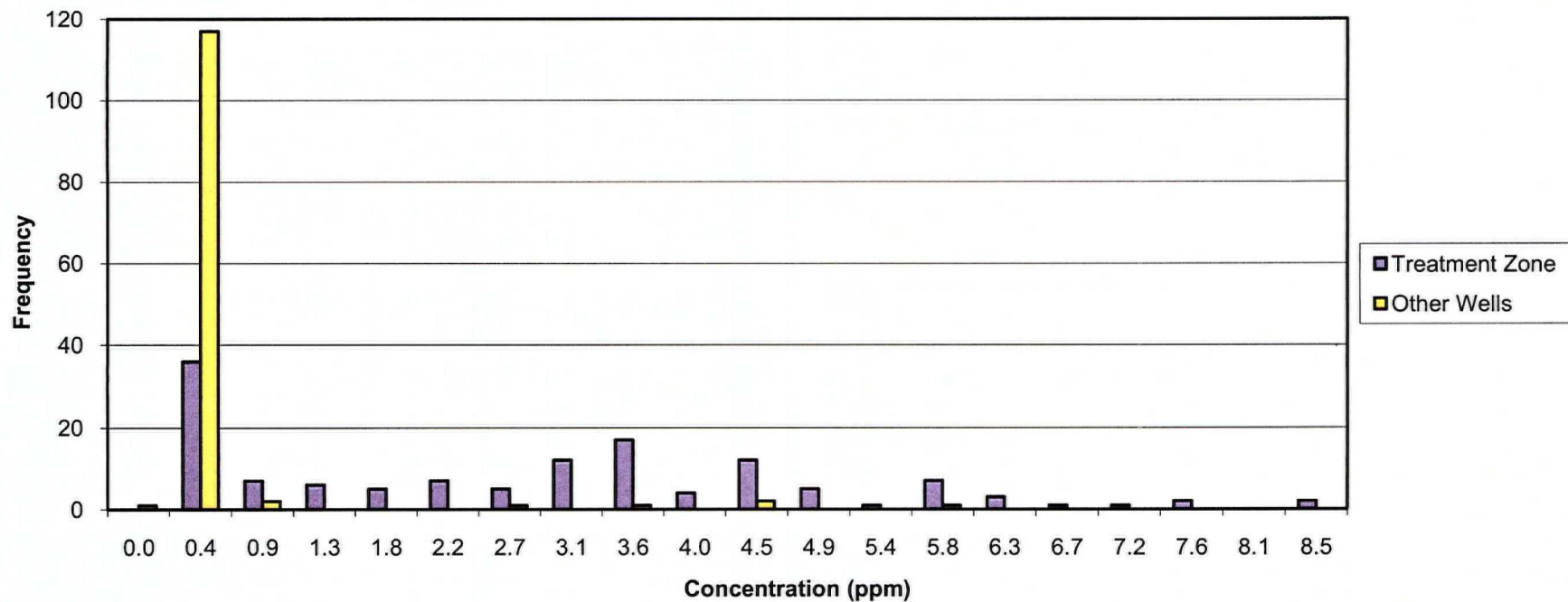
## ORP Histogram December 2004 - May 2010



## Dissolved Ferrous Iron Histogram December 2004 - March 2010



## Dissolved Manganese Histogram December 2004 - March 2010



U.S. EPA REGION IV

# SDMS

## Unscannable Material Target Sheet

DocID: 11091780 Site ID: SCD980558142

Site Name: Medley Farm Drum Dump

Nature of Material:

Map: ☒

Computer Disks: ☐

Photos: ☐

CD-ROM: ☐

Blueprints: ☐

Oversized Report: ☐

Slides: ☐

Log Book: ☐

Other (describe): Geological cross section and TCE distribution  
in groundwater

Amount of material: \_\_\_\_\_

\* Please contact the appropriate Records Center to view the material \*